July, 1994 - Volume 11, No 7 * $4.95 (NZ $7 inc. GST)

NDD

Australian Commodore &

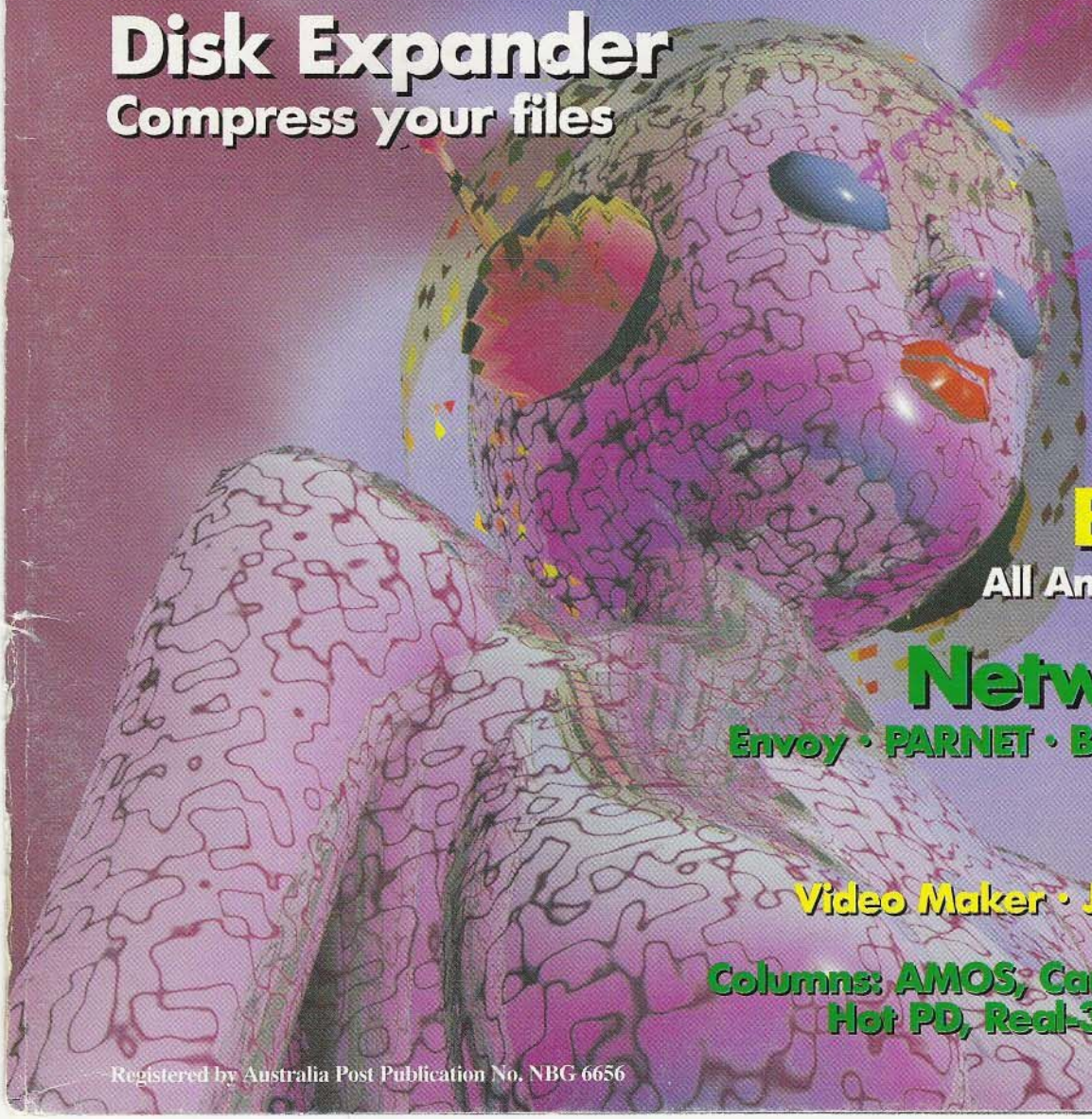
AMIGA Review

For Professional and Home Users

Wordworth 3.0
First Impressions

Imagine 3.0
What's new?

Disk Expander
Compress your files



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CD32
Video Maker • James Pond III

Columns: AMOS, CanDo, Blitz, DTP
Hot PD, Real-3D and AREXX

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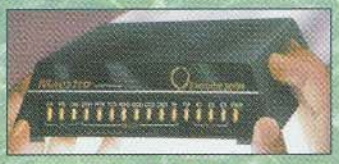

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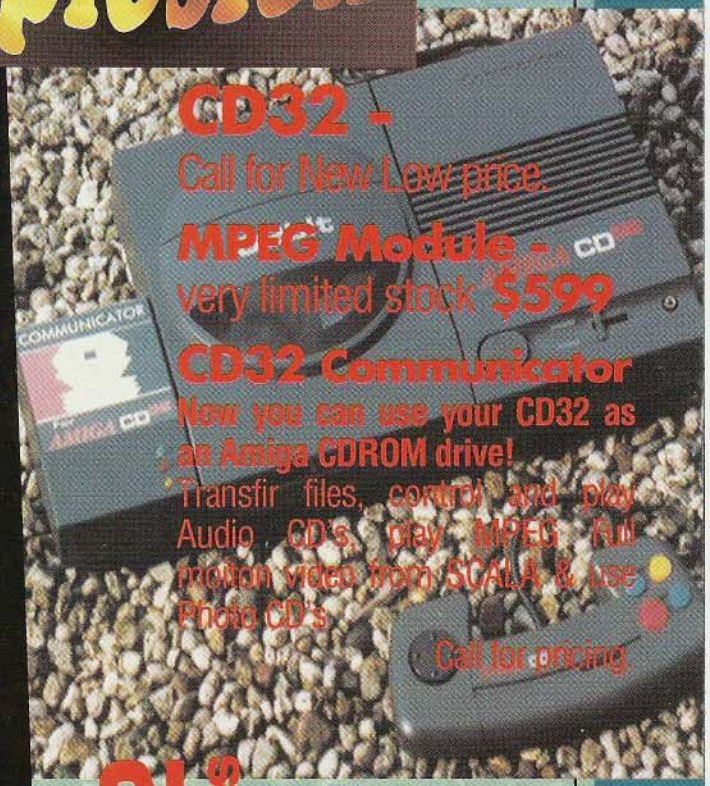

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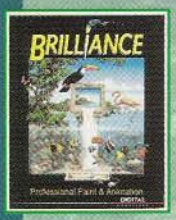

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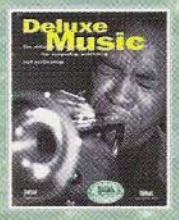

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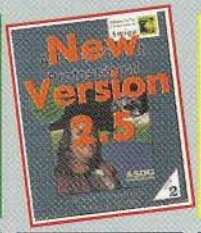

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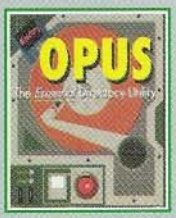

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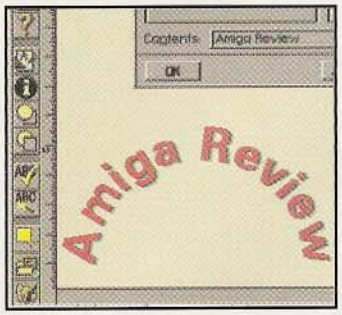
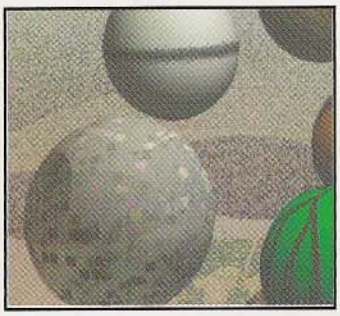
C O N T E N T S

July, 94 - Vol 11, No 7

Features





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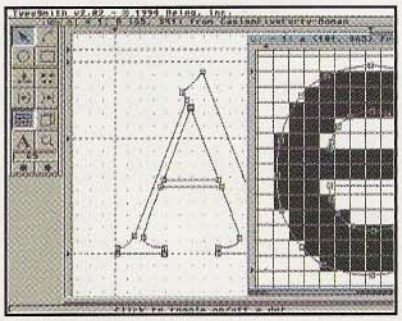

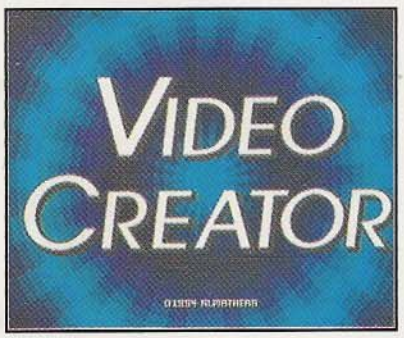

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***Cover:** Rendered in Imagine 3.0, by Peter J. Ward. Image 1500 x 2000 pixels, 24 bit.*

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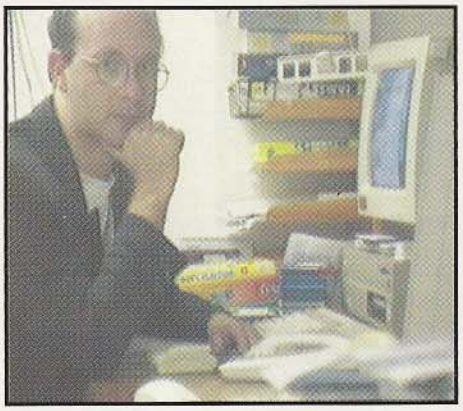
The new Review



Welcome to your new 100% Amiga desktop published Amiga Review! Yes folks, at long last Australian Commodore and Amiga Review is produced using Amiga computers all the way to film.

There's a few other important changes this month too! Yes, our cover price has gone up by $1, but we've thrown in an extra 16 pages of editorial too. No, there are not more ads, but more articles, more columns, and we hope an even better looking publication. Over the next few months, you'll see a lot more Amiga in Amiga Review - so stay tuned.

On the Commodore front, Samsung has put its final bid in place and now the final decision is in the hands of the liquidators.

We can look forward to a decision some time in July. Given that the official closure of Commodore International was only in late May, negotiations have moved fairly quickly.

It's been an interesting time for us to see who was prepared to stand by the Amiga and who would depart to greener pastures. We're confident the Amiga is here to stay - regardless of who produces it. The machine has many strong supporters, lots of great software and plenty of comitted users.

Once things are back up to speed, we can look forward to some amazing new Amigas, and a big push in the CD-ROM arena. As part of the bigger Amiga Review, we've included a 4 page CD section covering CDTV and CD32 titles.

Something some of you won't like is the smaller games section. That was a tough decision, but one we decided had to be made. The best thing about the Amiga is not the games - although there are some impressive titles out there with more on the way. Amiga is more than that.

What's more, in Australia it's pretty tough to try competing with other magazines from the heart of countries where the most popular entertainment software is produced - the U.K. and Europe

So, we figured we would leave the beefy game reviews to the likes of Amiga Format and stick to keeping you informed more in other areas.

That's not to say we won't be running game reviews - as you'll see in this issue. In fact, our new game reviews will be a lot more hard hitting and the games more thoroughly tested than ever before.

We're still on the look out for columnists and regular contributors. So if you have something to add, please phone or write.

Enjoy!

- Andrew Farrell

❑

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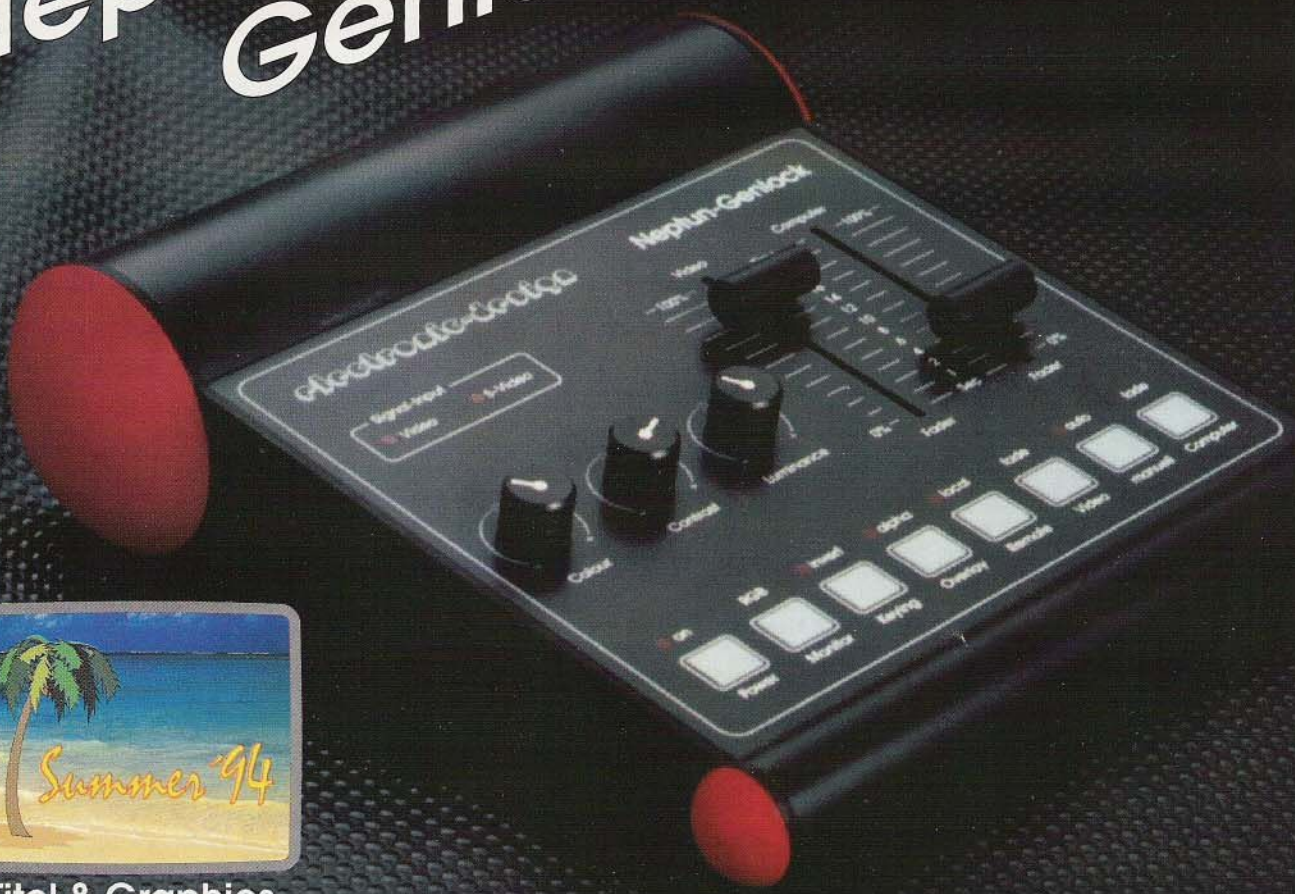

Titel & Graphics

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Alpha channel

Auto fading

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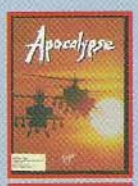

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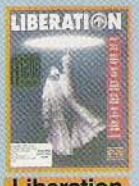

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Jurassic Park	64.00	69.00
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Morph	64.00	69.00
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Reach Out For Gold	64.00	69.00
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Home Computer Show Report

Sydney's Home Computer Show attracted over 30,273 visitors last week, some of who were Amiga enthusiasts. Sadly, the World of Commodore initially planned to be part of the event did not happen.

However, there was a small representation from Sigmacom, Bytes and Games, Amiga Review and Amadeus.

Despite the current standstill at Commodore, there were a number of interesting new products released and we even spotted a couple of Amiga 1200s for sale along with a few Full Motion Video modules for CD32.

Eager buyers snapped up these last remaining items, joining what developed into a frantic market atmosphere by the show's end on Sunday evening.

GP-Software previewed a revamped version of Easyledgers, following their recent aquisition of the package from Sybiz. The new version sports a brand new Workbench 2 compliant interface, requires a joystick port key to operate, and promises to fix some of the program's rather annoying bugs.

I had a quick play with the new version, and can report it has a very snappy feel and is much easier to use than the earlier program.

Amadeus Computers released the new Microvitec monitor at the show. Designed as a replacement for the Commodore 1942, the Microvitec offers improved picture quality along with auto-centering. This feature is vital for use with AGA Amigas, where switching screens can mean changing scan rates. With auto-centering, the new picture will always be in the middle of the monitor, unlike the old 1942 which requires manual repositioning using the horizontal adjustment knob whenever you change scan rates.

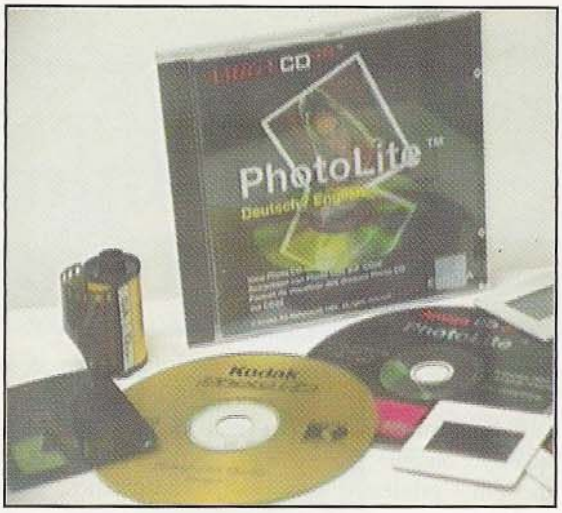
RRP is $799. For more information contact Amadeus on (008) 808 503.

Amadeus also had Digita's new Wordworth 3.0 on display - previewed elsewhere in this month's Amiga Review.

There's lots of fancy new features, like tables and text effects, but they're hampered by sluggish performance and, according to some sources, a number of annoying bugs. Digita are about to ship an update to the original release which they promise will fix everything.

Digita has also updated its personal finance program, which has been renamed Money Matters. The new version requires Workbench 2.x and sells for $129.

❑



PhotoCD support now on your CD32

PhotoLite, distributed by Sigmacom and supported by Tech Media, allows access of PhotoCDs from a CD32. Commodore's games console actually has a multi-session PhotoCD capable CD-ROM drive - which means it can be used to view PhotoCD's which have had more than one lot of images stored on them.

PhotoLite turns the game controller into a simple forward and backward selector to step through the images on the disk. Images are viewed in 256,000 colours. A simple slide show option is included. Although designed exclusively for CD32, the software will also work fine on any A4000 or A1200 with a suitable CD-ROM drive.

Photo Pro, a professional PhotoCD package for the A4000/1200 is expected soon, but will require 4Mb of RAM.

Right now, a number of photo processing bureaus offer a film to disc service. PhotoCDs are an ideal alternative to scanning images for presentations or desktop publishing. For more information contact Sigmacom on (02) 524 9846.

❑

IMPORTANT: Please FAX your product release information to (02) 816 4714 or post them to:

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Studio Print Manager

Getting the result on the side of the box can be a real trick, especially when it comes to colour printers. However, the new Studio print management and drive package from the famous Wolf Faust is no available from GSOFT.

It promises to deliver quality output from most modern printers. Features include support from 24 and 48 pin heads, 16.8 million colours or 256 grey shades, ink compensation, gamma correction, multiple dithering methods, banding elimination routines, poster modes, compressed graphics support and special Pagestream drivers. RRP is $99.

Dealer enquiries are welcome. For more information contact GSOFT on (08) 254 2261.

❑

Bathurst Amiga Store

Westcomp Computers are keen to have all those west of the great divide in New South Wales know that they are alive and well, and offering continued support for the Amiga.

Lou Lucano's store sells Amiga hardware, software and peripherals as well as a smattering of Commodore 64 stuff. Westcomp was once Commodore Education Dealer of the year. Check 'em out at 96 Bentinck Street, Bathurst or call (063)32 2611.

When we spoke to Lou he even had a couple of A1200's left! ❑

DPS Personal Animation Recorder

Information is starting to trickle in of yet another contender in the non-linear digital video editing stakes. TV Graphics, a Melbourne based company, are currently supplying demo tapes of the Personal Animation Recorder.

The system consists of two cards - the DPS DR-3150 provides genlockable playback and the DPS AD-3000 does the grunt work of capturing video. The 3150 provides simultaneous playback in composite, Y/C and analogue component YUV. The card requires a Zorro II slot, and includes an integrated IDE drive controller, which gives about 3.5Mb/second transfer speed when used with a Micropolis 525Mb, 1.05Gb or 1.7Gb IDE drive.

Used with the Sunrize Studio 16 card, the board will also lock to SMPTE timecode.

Video capture using the AD-3000 uses another Zorro II slot, and makes 3-5 minutes of video possible on a 500Mb drive depending on image quality. The software has a single interface for importing and exporting IFF24, Targa, Toaster Framestore and SGI files.

You can also convert 24-bit files from its anim format and export to any Amiga partition, allowing rotoscoping of realtime video and 3D animations in ADPro, ImageFX or Imagemaster. The processed images can be reimported and output to video in real time. The resulting files can be backed up onto any Amiga partition.

According to TV Graphics, tests on an '040 accelerated Amiga 2000 with 18Mb of RAM produced a 39Mb PAR file from 450 IFF24 images in 30 minutes. They say about the same amount of time is required to convert the same images into a HAM8 anim using ImageFX.

The resulting file was recorded to Betacam and was pronounced good enough for broadcast following examination on a vectorscope.

The capture card costs $2031, and the playback card $3921 (both ex tax). A suitable IDE hard drive will range from $1600 for 525Mb to $2000 for 1.7Gb (ex tax). For more information call TV Graphics on (03) 417 3175.

❑

3D Objects CD-ROM

The new "Syndesis 3D-ROM" is a CD-ROM collection of more than 500 freely distributable 3D models, all present in AutoCAD DXF, 3D Studio, Wavefront .obj, Video Toaster LightWave and Impulse's Imagine PC/Amiga formats. It's also got more than 400 tileable, wrappable texture maps. It includes a fully indexed, cross-referenced catalog of the objects.

The disc includes demonstration models from companies such as Viewpoint Animation Engineering. 28 Viewpoint demo models are present. More demo objects were contributed by Noumenon Labs, VRS Media, Mira Imaging and other commercial modeling companies.

The 3D-ROM is a demonstration of the translation abilities of InterChange, Syndesis's system for converting between 3D file formats.

For more information contact:

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❑

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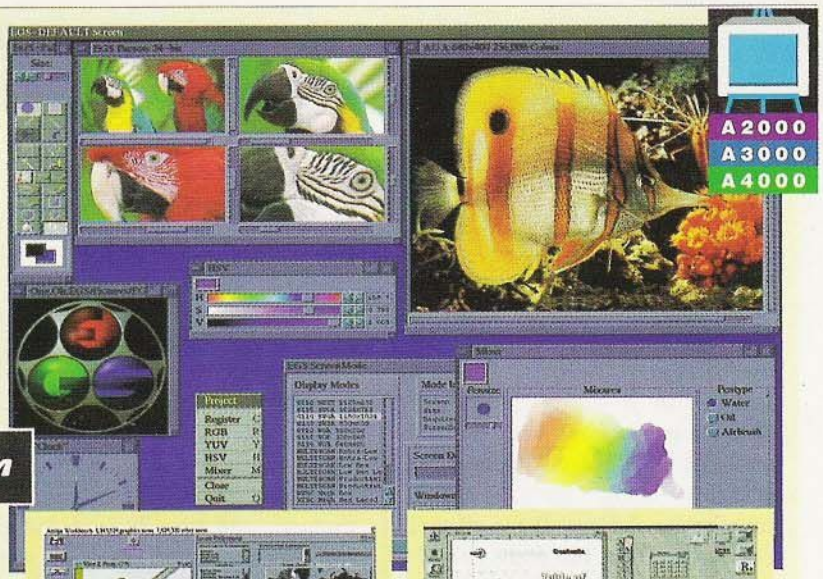

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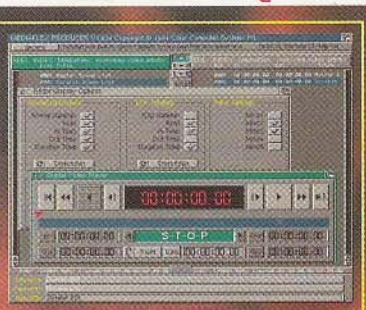

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Radio

Scott Hillard of Computers and Things, Port Macquarie, spotted Amigas on "Inspector Morse" and the Canon BubbleJet ad, and Amiga graphics in Club Keno and the ABC's "Live and Sweaty". Unfortunately, all of these have been done before, but he also mentioned that a local radio station's using an A4000/030 running Final Copy II for all their correspondence, and plans to add a 16 bit sampler and broadcast music direct from the Amiga.

Learning Centre

Phill Dearden of Menai, NSW spotted an article in the St George and Sutherland Shire Leader about a new computer learning centre at De La Salle high school, which is plainly shown in a photo to include an A2000 and that clunky old classic early 1084 monitor. He asks us to plug his BBS; fair enough. It's called Cerberus BBS, and it's on 543-0572 in whatever Menai's area code is.

Shopping Mall

Neil Bailey of Millicent, SA, has been told that the REM MYERS Centre in Rundle Mall, Adelaide, are using Amigas to run their information displays on each level. The machines use touch screens to let shoppers find information about different sections of the store.

Novel

Doug Groat of Dee Why NSW found Amigas referred to a couple of times in the novel "The Long Lost" by Ramsey Campbell. One of the characters in the novel owns a store called "Computer Explosion" (with a name like that, he'd better offer danged good warranties...), and the Amiga is mentioned - as a games machine. Ah well.

University

Ian Mitselburg of Glebe, NSW, was perusing Macquarie University's guide for prospective students, and spotted an Amiga on page 24A in a video lab. It's a 2000 with twin 3.5 inch and one 5.25 inch drive and, wait for it, that ancient 1084 again. We're starting to think our Media Watch contributors are just faking these pictures, and have several Amigas to choose from but only one monitor.

Skytrackers

J. H. Roddick of Sale, Vic, found an Amiga reference in the Melbourne Age Green Guide of 3 March this year, in a piece on a children's sci-fi/adventure TV program called "Skytrackers". Skytrackers' special effects are mainly done on enhanced A3000s, Deluxe Paint 3 (only 3?) and what's described as "Director and Animator software tools" (The Director? Aegis Animator??).

Everywhere

Mark Beijer of Busselton, WA, spotted some rather inconsistent Amigas in what he describes as the "pathetic" kid's show, "Ship To Shore". They certainly could do a bit better on the Amiga side; it features kids in a school typing up a newsletter in the Workbench 1.3 Notepad, a game using what looked like DPaint animations and a scene of them using Workbench 2 on a 2000.

Mark also spotted an A2000 and keyboard on the Red Dwarf sci-fi comedy show; Red Dwarf actually has a smorgasbord of low-cost computer debris all over it so it's hardly surprising an Amiga crept in.

When watching the golf on TV, Mark noticed the scores were done on an Amiga, and he also spotted an A2000 displaying a graph in the background of a scene in The Gods Must Be Crazy II.

Mark realised we're mean-spirited people here at ACAR and didn't ask for a free subscription, just a couple of back issues. They're on their way.

RAAF News

Sam Haddow of Katherine, NT, noticed a prominent Amiga in the RAAF News, where a couple of Air Force personnel are poring over a digitised image as part of their training in digital image processing at James Cook University. It's a twin-drive 2000 with an old model 1084. Yes, the same one. This is getting frightening.

Free sub, Sam? Well, you DID paste the clipping onto your letter, not just clip or staple it - oh, all right.

❑

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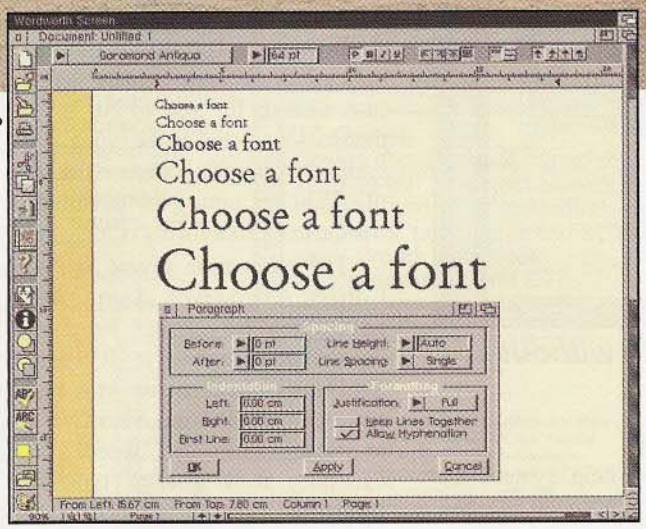
Word Q Processing

Wordworth 3.0

First Impressions

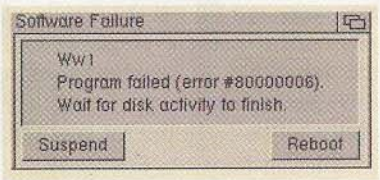


"A host of powerful new features."

By Andrew Farrell

Early players in the Amiga wordprocessing business have all but disappeared. Excellence has fizzled out, ProWrite struggles on in the background, Pen Pal is still in the odd store and others like Scribble have simply been outdated and outgrown. The two big names are from relative newcomers.

Final Copy, and the more recent Final Writer have gained a solid reputation as a reliable, if somewhat quirky package. Wordworth seemed to offer more, but the trade off was its cumbersome interface. The two have battled it out over the past few years.



A new version is coming...

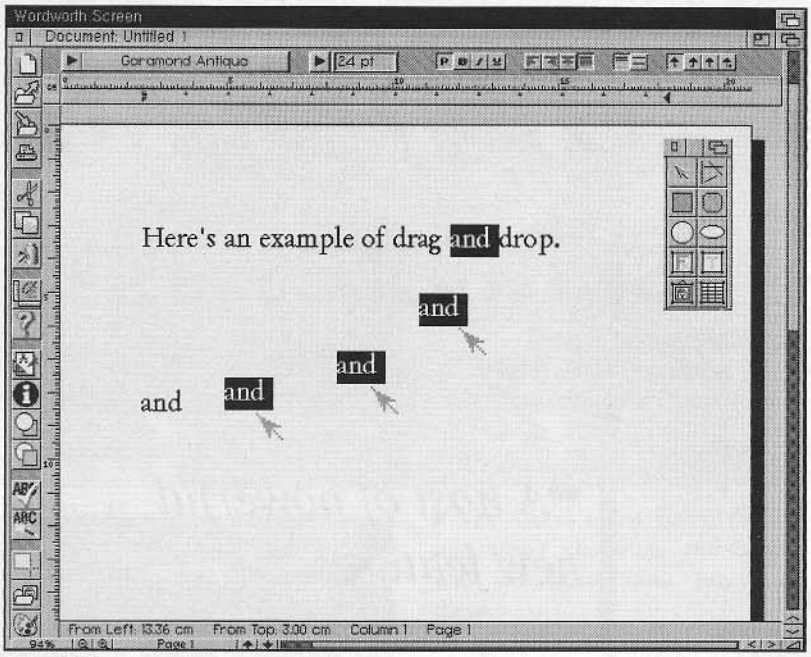
Version 3.0 of Wordworth was released prematurely in Britain a month or so ago. With Final Writer out, the people at Digita made a dash to ensure market share was not lost. The result was the version we got our hands on to review. Sadly, a new release was due to arrive days after going to press, and Digita promise it fixes all the bugs we ran into. So, for the moment, we'll put the problems to one side, and let you in on what's new in the world of wordprocessing using Wordworth.

There are some really great features in this latest version, and providing Digita's maintenance release lives up to their promises, Wordworth may be just a step in front of Final Writer. At long last we're starting to see some of the functions found on industry heavy weights such as Microsoft's Word 6.0 on program costing half the price on our beloved Amiga.

What's New

For starters, the whole interface is different. Version 3.0 is a rewrite, a whole new program - a lot like the fabled Pagestream 3.0, the arrival of which may still be another month or so off. The menus, gadgets, sliders and windows now conform to Amiga Style Guidelines - for the most part. This is very important as operating system versions continue to march forward and the Amiga's architecture moves ahead toward AAA. Compatibility can only be ensured if developers follow the rules. What's more, it makes using Amiga software easier, as every application will follow a familiar interface. Good move Digita.

The tool bar is can now be remodelled to suit your tastes. You can choose what tool icons you would like to appear, and whether the bar is vertical or horizontal. In fact, the more I dug, the more I



Highlight, drag and drop - cut and paste without leaving your mouse

found Wordworth was so much more configurable than the previous version.

Drag and Drop Editing

It's often the little things that really impress. Cut and paste is one of the more commonly executed functions of a word-processor, so any improvement in this area are very welcome. The cut and paste buttons on the tool bar are easy to get to - having them at the side of the document is the most convenient location. However, what is better is the new drag and drop editing.

Here's how it works. You highlight a piece of text and then move the mouse until it turns into a pointer just beyond the edge of the highlighted region. Now click and drag - the pointer grows a shaded box on its tail. Release the mouse button wherever you would like to paste the text. The text is instantly moved - or if you hold down CTRL, it is copied. This simple feature is a marvellous way of editing text.

On-Line Help

Wordworth's help system has been seriously improved. It now takes advantage of the Amiga-guide file format. There's an extensive index, How do I? section and plenty of cross-references. I found a lot of the best features by flipping around the help system rather than reading the manual.

The documentation is quite good, but I can never get too excited about perfect bound books. They don't sit flat and eventually they tend to fall apart.

There's a very handy summary of all the menu tool icons on the back cover, the index is good, there's some handy tutorials and the appendix covers a few tricky areas like Postscript printing in more detail.

What is lacking are some impressive example documents on the distribution disk. The two included are rather dull, giving no indication of the power of Wordworth.

Another concern is that the updates taking place now will probably only be documented in the help system.

Automation

One of the strongest trends in modern wordprocessors is the increasing numbering of time saving functions. Although we'll have to wait a bit for auto-formatting, right now Wordworth 3.0 offers document templates, and Auto Correct. The first is simply a collection of ready made pages, just waiting for you to fill in the details. You can make your own templates, but it's a shame that the old Pen Pal option of documents which work like forms is missing.

The other time saving is Auto Correct. As you type, Auto Correct will watch for certain word and immediately replace it. It's faster than spell checking as you type, and you can also use Auto Correct to create short cut words. For example, if I always type teh instead of the, Auto Correct will fix it. However, it could also turn af into Andrew Farrell.

This feature has the potential to be developed much more to include such things as smart quotes, looking for double capital-isation or making sure sentences start with a capital. As it is, the current version will already cap-italise day and month name if your require.

Tables and Calculations

Although Wordworth supports four kinds of TABs - centered, left, right and decimal, creating tables is still a hassle unless you use the Table option. A single click on the table icon and you can size a table into view and fill out the details. If you need to total, average, or find the minimum or maximum of a row or column, the calculate option will work it out for you.

I found the table facility really handy, but it stops a bit short of

Final Writer - Release II

Final Writer has been improved - the new Release 2 makes it posssible to select bold, italic or indeed underline in a civilised fashion from the tool bar. What's more, there is now a Font/Style strip - a floating bar containing access to the features often used in altering the look of text. It contains control over the paragraph style, font, point size, text position, case, and - ready for this - style.

The edit menu now features an Undo or Redo option. There's also a floating palette, floating view menu and floating layout menu. To float a menu means it is not attached to the screen - it can be placed anywhere. At times this can be a curse as you struggle to organise all the tool bars you have open. However, when you're trying to do something tricky, it's quite handy to have all the control right at your mouse pointer tip.

I haven't had time to carry out exhaustive timing tests, but Final Writer 2 certainly seemed faster than the earlier version. Other improvements include better control over the document view, with the option of revealing or hiding the tool bar, page guides, tab guides, user button strip and so on. The layout menu now allows you to easily adjust paragraph alignment, line spacing, and indentation.

Overall, there are many impressive, albeit small imrovements, in Final Writer release 2. The authors have redeemed it successfully from the pits of frustration it previously haunted. Wordworth 3.0 sounds dramatically improved over its previous version. I will report on that one as soon as a copy arrives to test.

For more information on Final Writer release 2 contact the Australian distributor, Tupsoft, on (02) 477 5353.

being a breeze to use. It's impossible to resize the entire table, and adding columns and rows is fiddly. The calculate function has to be executed every time you make a change - it doesn't work like a formula in a spreadsheet. Nevertheless, tables are a welcome addition.

File Formats

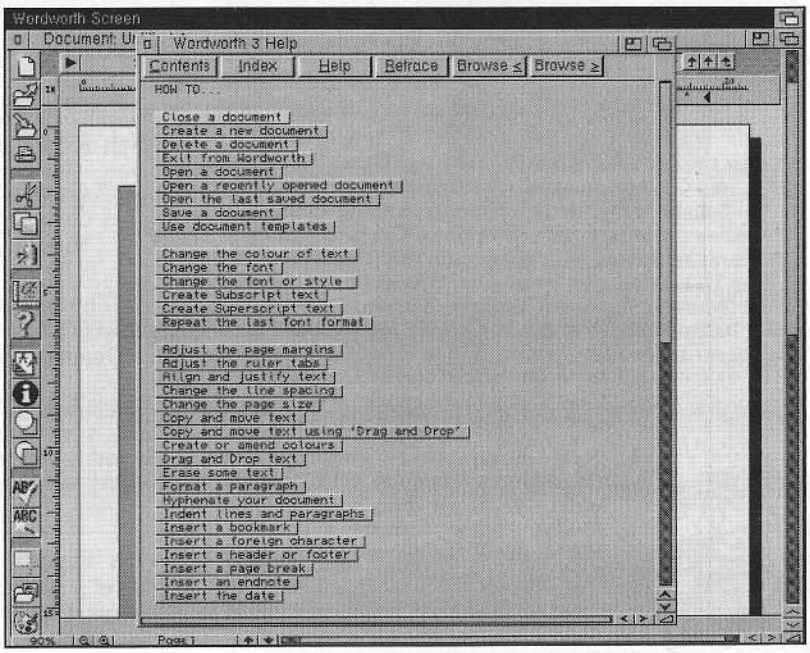
Behind the scenes, Wordworth is now very modularised. The business of importing and exporting files is all handled using filter files, much like Professional Page. The theory goes that you can easily bring out new filter files to increase the number of formats supported by your software.

In the graphics department, Wordworth seems big on IBM file formats, but a bit light on when it comes to the Amiga. You can import BMP, GIF, IMG, PCX and TIFF files, as well as IFFs. Fine. However, when it comes to structured clip art, you're limited to CGM or GEM - both IBM formats! Whatever happened to good old EPS - or the popular ProDraw format. It looks like Digita are doing little more than trying to corner the market for clip art add on disks.

In the document area, Wordworth will import ASCII, Microsoft Word or Works, Rich Text Format, Wordperfect 5.1 or Wordstar. Fine - but what about a few Amiga formats please? Sorry - it's ASCII or nothing. Digita must have decided to penalise anyone who decides to upgrade to Wordworth. Watch out, you may have to convert all your old document to ASCII and lose a lot of your formatting. As it is, most of the import modules strip away a lot of the fancy stuff.

Drawing tools

Wordworth has finally bowed to the pressure of many users to include some drawing tools. However, they've still left out the most important things in my books - a snap to grid option. Trying to line up a dozen lines when you're creating a form is a pain without a



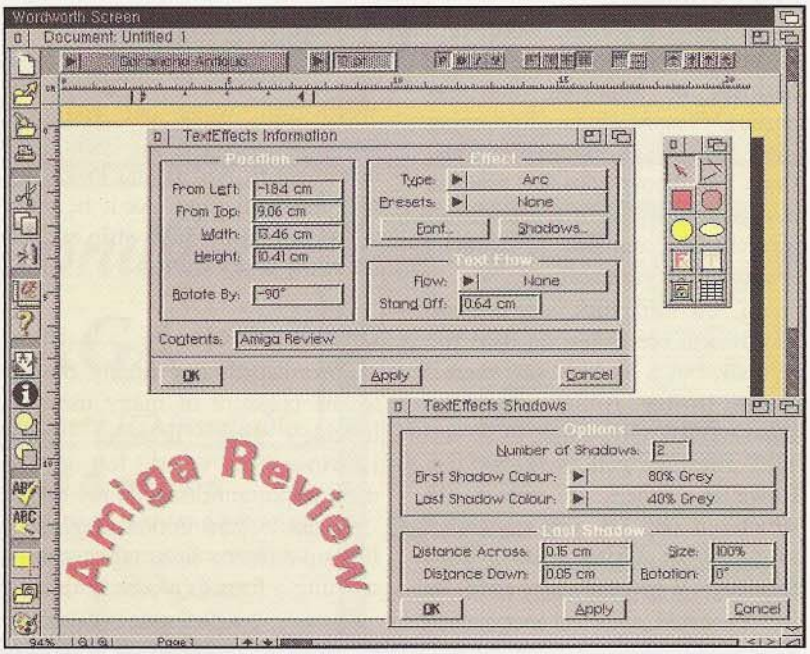
You can almost do without the manual thanks to excellent online help.

grid to work to.

At least the basic shapes are all there - lines, squares, circles, ellipses, even text boxes. All can have various line thickness, styles and colour. Solid shapes may be filled or transparent and there's reasonable control over which object is in front or behind.

Text Effects

If it wasn't so slow, this feature would be a real winner. As it is, text effects are but an interesting toy - useful about once a year when you do something wacky. Your kids will love it. Basically you can take a perfectly readable piece of text and make it illegible by twisting it, curling it, adding multiple shad- ows, rotating it - the works. Very clever, slow, and a little on the clumsy side. You adjust the gadgets, wait to see the outcome, then adjust some more. A more WYSIWYG way of working with this would be really handy. Digita should take a look at the way Word 6.0 handles this feature.



Slow, but fun, - make some amazing text effects.

Wrap Up

Well, we've just scratched the surface. Of course, Wordworth is a solid program - all we've looked at here are the weird and wonderful new things they've added. Next month, when we get our hands on the B release which is hopefully a lot more stable, and may even have some new things, we'll do a complete run down, including a performance comparison between Wordworth and Final Writer. Stay tuned.

Thanks to Amadeus Computers for supplying our evaluation copy. Expect the new versions available by now.

For more information call Amadeus on (02) 652 2712.

❑

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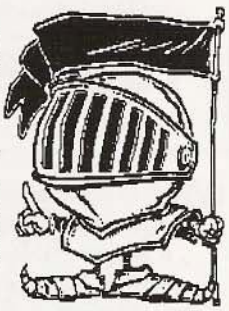

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TUTORIAL

Understanding databases

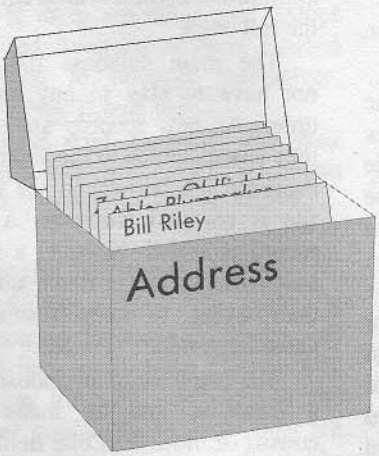
By Andrew Farrell

"What they are and how you can use them."

Database programs were once as important as a wordprocessor, or spreadsheet. However, these days what was once a general purpose application configured individually for the needs of a user, has become specialised shrink-wrapped software. Contact management programs, like Keep Track from Tupsoft are a good example.

Essentially, Keep Track allows you to maintain a database of contacts. Everything is set up just right for that one application. An accounts package is a more complex series of databases, interlinked and related in many ways to keep track of business transactions.

However, there are still times when an off-the-shelf package won't quite do what you want.



So, designing your own database using a program like Superbase Personal, or a more powerful package like Superbase Professional, might be required. Understanding how a database is organised is useful not only for creating your own applications, but also in maintaining and working with specialised programs that use database files.

What is a database?

The term database is a little confusing, because it can refer both to a program and the files that the program allows you to maintain. A database program is the engine that looks after a database file. Many database programs also allow you to program anything from a simple formula to complex applications with hundreds of lines of code using a built in database language.

For now, let's take a look at the file. A database file is quite different from most other types of files on your Amiga. Internally, it is organised in a very specific way - defined by you. It may also be able to take advantage of other files to help it work better, such as an index file.

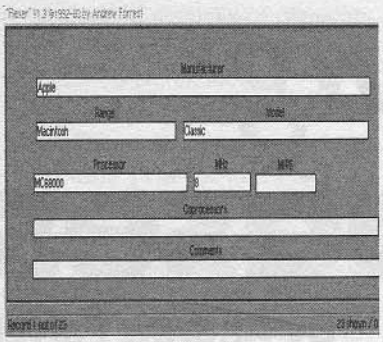
The idea of a database is similar to the old card file box used for keeping names and address, along with other details. You still see them in use in, say, a small doctor's surgery. If you're using a card file, chances are you could get better value out of it by putting the information into a database.

Like the card file, a database file is organised into many records. Each record contains an entry for one of the items being filed - it could be people's details, an inventory of stock, or a catalogue of records. The records are in turn divided into fields, which are places where individual pieces of information are stored for each record.

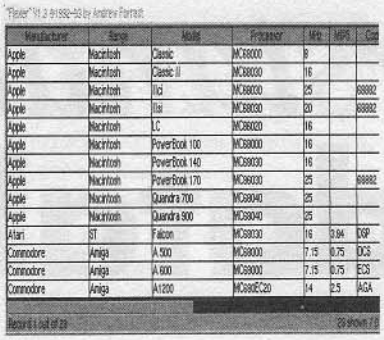
For example, a database of clients may contain several hundred records. Each record would include fields to put information such as the name, address, telephone number, last date of contact and so on.

The individual fields can be set up to only accept certain types of data, such as a number, date, yes or no, or just text.

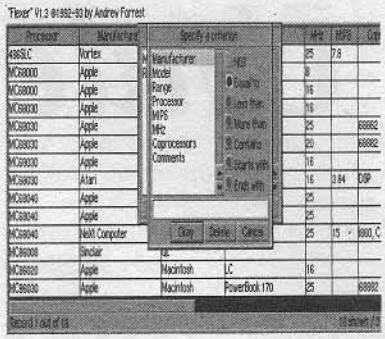
A field could even be the result of a formula, just as a cell in a spreadsheet can result from a calculation.



Flexer is good example of a public domain database.



You can view records as a card or a list.



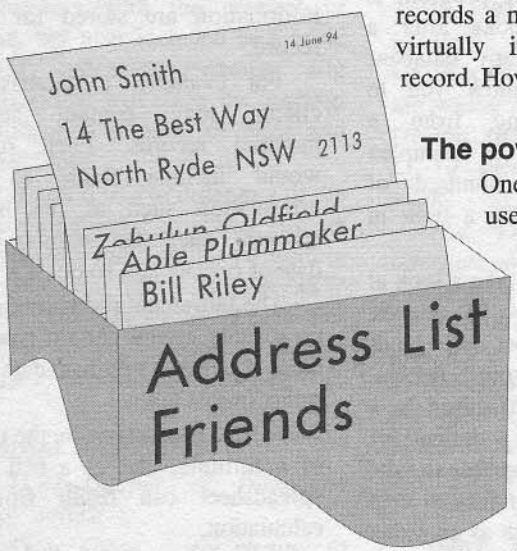
It's easy to filter out records you don't want to see.

The advantage

Where a database gets interesting is the many ways what you put in can be got back out. For example, we have a database of subscribers to Australian Amiga Review. Each month, the database is updated with changes of address and new subscribers are added. When the magazine is ready to be shipped, address labels are generated by asking the database to output all the people on file who are due an issue. Of course, some subscribers have lapsed and these are excluded. The list is generated in postcode order, and the number of issues due to each subscriber is automatically adjusted. All of this is done with a single command.

We don't have to waste time sorting the labels, sifting through to see which subscriptions have expired or which ones are due an issue. The database program does all this work for us. At any time we can see immediately how many of the people on file who have ever subscribed are currently subscribers.

Doing all of this using a manual system would be very cumbersome. Just finding someone's card file can be impossible if you're missing the name, or it's been filed incorrectly. A database program can find records a number of ways, so it's virtually impossible to lose a record. How does this work?



The power of indexes

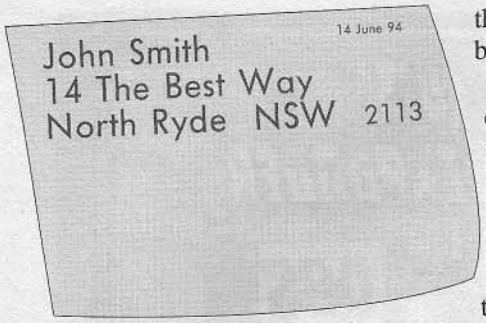
One way is through the use of indexes. An index is a separate file created by the database program based on one or more fields in the main database file. For example a catalogue of video titles would probably be indexed by the field containging the name of the movie. So, the database program would create a separate file which only contains the names of the movies, and a pointer to say which record in the main database file contains the complete record for that movie.

The main indexed field is sometimes called the key field. The order in which your database appears when you're editing and adding records is normally determined by the currently selected index.

The index is kept in sorted order, and because it's much smaller than the main database, is a lot faster to search through to find a particular movie name. Once the name is found, the database can display the appropriate record, which contains the full entry.

The main database file does not have to stay in any sort of order. As new records are added they are appended to the end of the database file. However, the index file is resorted whenever a new record is added. Keeping a small index file sorted is much quicker than trying to keep the entire database sorted.

You can have many indexes for a database, and an index can consist of more than one field. For example a database of clients



might have an index that includes the first six letters of the surname, then the street number and name. In a database likely to have similar entries, this helps to make each index entry unique.

Indexes make the whole business of viewing your database in a particular order, and of finding records, much faster. You can recreate the index at any time if it gets damaged, although the bigger the database the longer it takes.

Working with more than one database

Say you have a database of clients. You might also a database of products. Now you decide to create a new database to contain the transactions your clients make, purchasing your products.

You could have one big database, with each record containing the client details, products ordered and details about the products, but this would be inefficient.

For starters, one client might make many orders, and you would be stuck having to re-enter their address details many times. Likewise, one product might be ordered by many different people. You don't want to have to keep entering the unit cost, or description.

The solution is to use three separate databases, but to relate the client and product database to the transaction database. Here's where things start to get a bit complex, but you'll get the basic idea.

Instead of recording all the client details with each transaction, all you really need to know is which record in the client database the information is in. The easiest way to make this link is to have one of the fields in the database equal one of the fields in the customer file.

The common field might by the customer number, or name. Once you've created the relationship, as you enter transactions your database program can check to see if you've entered a valid customer number or name, and display the details. However, the actual record in the transaction database will only contain one field linking it to all the customer information. The rest of the field can detail the transaction itself - quantity ordered, payment details, and so on.

A similar relationship would be created with the product database. A product code or name field in the transaction database would be linked to the same filed in the product database.

This ability is very important if you're likely to want to link databases. To do this, you need to use a relational database.

Creating these relationships is quite simply using modern database software. Superbase now allows links to be defined using a menu system. The ways things are organised is displayed graphically, making the structure much easier to understand.

Next month we'll take a closer look at setting up a simple database of our own, using a couple of different programs.

❑

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Disk Expander

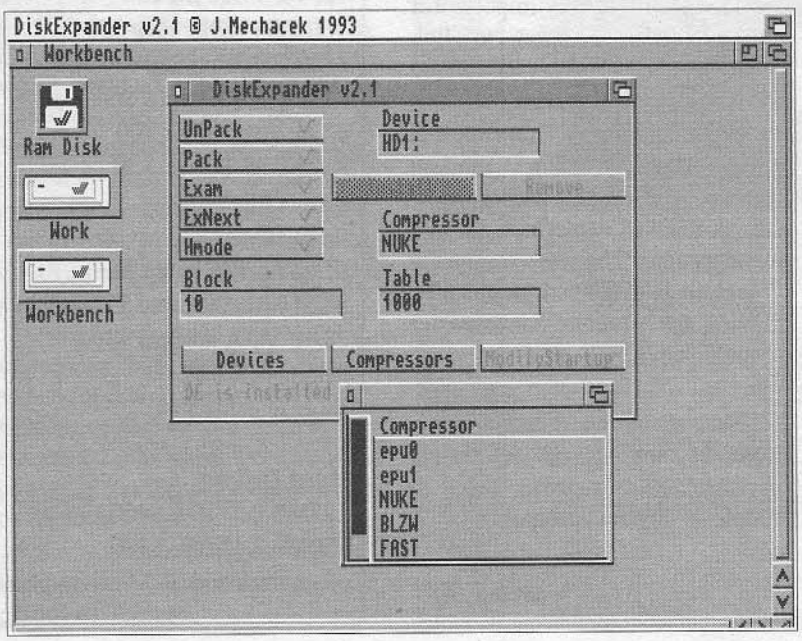
By Gavin Watt

As an owner of an A1200 with a 40Mb hard drive, it didn't take me long to cram the drive with software.

Initially I compressed the main programs using Powerpacker. This saved me some space, but only for the programs. Some programs wouldn't compress at all.

The obvious thing to do is buy a second or larger drive, but I also wanted to buy more RAM. The cost of both would have been prohibitive. A compromise was needed.

File compression has been used in the Amiga environment for a number of years. Archiving programs such as LHA and ZOO can save space, but it's time consuming to de-archive before using the data. There have been automatic file compressors in the public domain for some time, but Disk Expander is the first commercial package.



How does it work?

Disk Expander works by automatically compressing and decompressing data and programs on a specified device. Once set up it runs in the background, and you only notice a slight decrease in the speed of reading and writing files.

Disk Expander can be used on all Amigas and with all Workbench versions. A minimum of 1Mb RAM is recommended.

It is important to read the manual carefully. As I was paranoid that I would stuff up my hard drive, I pored over it. Since it's been translated from the original German, some of the text may need to be read a few times, especially by novice users. If you follow the steps in the manual, though, things should work out.

As Disk Expander reads and writes back to your hard disk, it is

wise to make a backup of the device. I installed the program successfully first off, but Murphy's Law could have struck at any time.

The package consists of three programs. Disk Expander reads and writes the compressed file,. Device Packer compresses the files already on a device and DEStatistics gives information on what has happened to the files on the device.

The packing algorithms that are the heart of Disk Expander come in the XPK standard library format and can be updated in the future. Disk Expander comes with three such libraries, BLZW, FAST and NUKE, as well as two specially written libraries. NUKE would seem the best all round library and is used as the default setting.

Installation

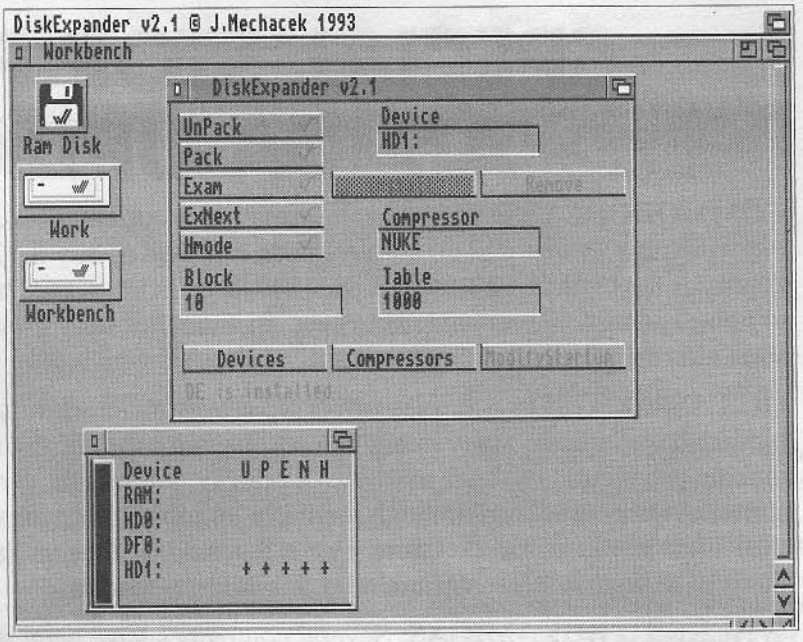
To install on a hard drive, simply boot from your normal system drive and use the InstallHD program supplied on the disk. After you type in your name and address for copy protection, Disk Expander will be installed in the required directories.

Disk Expander can be set up in the WBStartup drawer using the tool types explained in the manual. It can also directly modify your startup sequence, and gives a few options as to the position it takes.

If space is at a premium, then the boot partition can also be compressed. Be careful not to compress all the files though. The startup-sequence and system configuration files, as well as Disk Expander and its libraries, should remain uncompressed.

The default settings within Disk Expander will ignore these files. If you do compress all the files, you can use Device Packer to decompress them.

[Special care should be taken by users of old model A3000s with kickfiles on the hard drive. If you compress the kickfile, your machine won't even be able to boot from floppy and will sit there pathetically asking for a Kickstart disk. You Have Been Warned - DR]



The main window allows you to alter the device settings and compressors. Each device can have individual settings to suit your needs. For example, a read only partition can use a compressor with a faster decompression speed but a slower compression speed.

Clicking on the device button will allow you to see the configurations for each device at a glance. It is recommended that the Exam and ExNext settings be used, as some software can have trouble without these settings on.

Disk Expander can be removed from any device with the click of a button. This is particularly handy if you have installed it to DF0: and want to write to a normal disk. It is also possible to unpack a device by removing the automatic packing option and then running Disk Packer.

Overall the system works well. A little more time is taken to open and save files, but the benefits outweigh this. It does take some memory and if things are tight, it may be worth getting more RAM. This will allow you to run a larger cache for Disk Expander to work in, speeding up the process.

Disk Expander will also work on floppy disks, which can be a viable alternative to the overpriced high density disk drives. Again, some parts of a self-booting disk should remain uncompressed to allow it to boot up and read the startup sequence before implementing Disk Expander.

Reliability

I've been running Disk Expander now for over a month and have had no problems with it. I scored a 32% increase in my Work partition space. This may not seem much, but the drive contains mainly my program files, which don't compress as effectively as data files. Up to 70% in space saving can be gained on some files. I would expect a saving on average between 40% and 50%.

One interesting occurrence will

SPECIAL STOP PRESS AMIGA UPDATE

COMMODORE UPDATE: This information is current as of June 30th, 1994. A number of bids (possibly as many as eight) have been finalised to buy the Amiga technology. The exact details of the bidders, and state of each bid, is difficult to ascertain as the situation is subject to non-disclosure agreements. However, an announcement from the liquidators will be made soon after July 15, at which time it will be decided which offer has been accepted.

OUR ASSESMENT: All of the offers we are aware of are very positive. Several of the bidders have indicated they intend to continue with the current Amiga technology, as well as making production of AAA machines a priority. We remain very confident that things will be sorted out very quickly. Although there is a lot more information available, much of it is difficult to confirm, and therefore best left unsaid. It appears Samsung continue to have an interest, as well as a consortium of U.S. based companies.

WHERE TO BUY AMIGAS: Several companies have been successful in obtaining Amigas from overseas. At the time of writing CPA on (02) 337 6255 were expecting a large delivery of Amiga 1200s and Amiga 4000 '030s (full version). Sigmacom (02) 524 9846 are also expecting machines. These should be available by the time you read this.

MORE INFO: After July 15, call (02) 879 7455 during business hours for an update.

happen if you optimise your boot partition to cut down on file fragmentation. On the first reboot, you will be asked to insert your original Disk Expander disk into DF0.

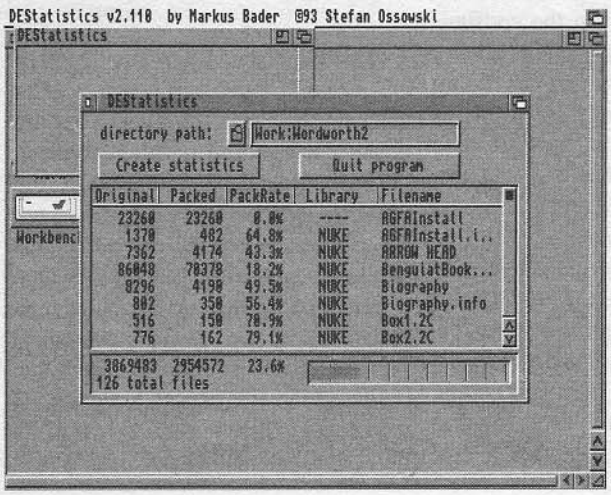
This is part of the copy protection and only needs to be done immediately after the first reboot. So make a backup copy of Disk Expander as instructed and ensure you always have it available after optimising.

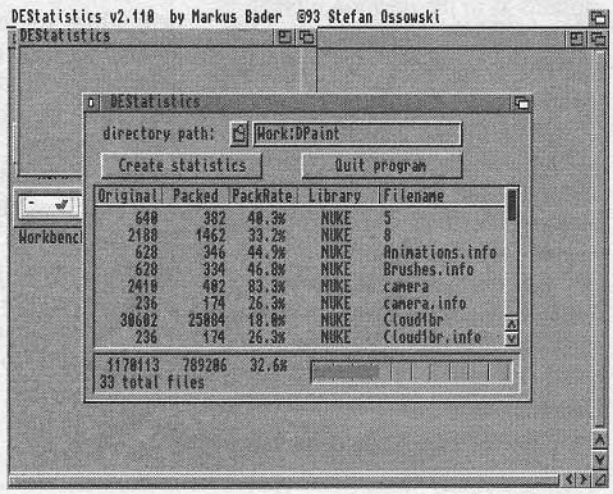
This is a tedious process if you only have one floppy drive, as constant disk swapping is needed. There should have been a better way.

For many years, IBM compatible and Macintosh users have enjoyed the benefits of easy to use compression software. Now there is something for the Amiga owners to consider.

Disk Expander is available through Amadeus Computers on (02) 652 2712 for $89.

❑





TUTORIAL

Understanding Compression

By Daniel Rutter

Compression comes in many forms. There are programs like Disk Expander, designed to increase your apparent disk space by automatically compressing and decompressing everything.

The earlier incarnations of these programs, packages like PowerPacker and Imploder, compress individual files and add a bit to the front that makes them automatically decompress so you can run them like ordinary programs. And archiving programs are intended to reduce the size of whole clumps of programs by compressing them into single files; this makes it possible to transfer them much more conveniently by modem.

But all of these compression varieties use the same basic technique to perform the seemingly magical feat of making data smaller. Here's a simplified explanation of how they work.

First, we need some data to compress. For this example, let's use the nonsense phrase "bikes reek spikes reed tree reef likes free breeze". This string of words takes up 50 characters, counting the spaces, but as you can see has a couple of similar elements - the "ikes " and "ree" parts are repeated.

Let's say we replace "ikes" (and the space that follows it) with "%" and the "ree" with "*". The result is "b%*k sp%*d t* *f l%f* b*ze", which is only 26 characters, a considerable improvement.

It's not quite that easy, though. How is an uncompressor supposed to know what's compressed and what isn't, and what each compressed character represents? There has to be what's called a look-up table for the compressed data, which in this case would say something like:

"%='ikes '*='ree'"

and there would also have to be an identifying character before each compressed chunk so the uncompressor knows to look in the table for what it means. If we say ^ is this marker, then the final file would look something like:

"%'ikes'*'ree'b^%^*k-sp^%^*d t^* ^*f l^%f^* b^*ze"

which is 49 characters total. A miniscule improvement - under 5% - but an improvement nonetheless.

Why does this simple example get such lousy compression? Basically because it's very small, which means the decoding information is large in comparison to the total file size. This reflects the way the real world behaves - very small files generally don't compress very well. The example also doesn't use the niftier mathematical tricks employed by real compression software, which you are quite free to learn all about if you've got an inquiring, algorithmically oriented mind, several weeks to kill and no social life.

Typically, good compression shrinks plain text by about 50%, programs by 20-60%, IFF pictures by around 10-20%, and some files, like GIF and JPEG pictures which are already compressed formats, by approximately nothing.

It depends on how "dense" the incoming data already is; a file composed entirely of the same character will compress to virtually nothing but a collection of very different data won't be nearly as easy to reduce.

Further advances are being made all the time in compression. There's big money involved in being able to send data from one place to another with the minimum investment in resources. This, though, is the core of it.

Public domain and shareware Amiga compressors you might like to check out include PowerPacker and Imploder for compressing individual programs, LhA for archiving, DMS for compressing entire disks and UnZIP and UnARJ for extracting IBM archives.

Colour Scanning

Migraph MS1200

"The economical way to get graphics into your Amiga."

By Dennis Nicholson

The Amiga is supported by a plethora of image enhancement devices. Such video boards as the EGS 28/24 Spectrum, Opalvision, Retina, V/Lab, Picasso, Piccolo, Harlequin, and the Visiona all allow you to display high quality images. But their output is only as good as the original input.

Image input devices for the Amiga have been available virtually since the machine came on the market. The first, and by far the most popular, was DigiView by NewTek. Being able to digitize images with a video camera was one of the Amiga's strong points, but it became obvious that the pictures were only as good as the original input device, in this case the camera.

Most users chose the cheapest available combination - black and white security camera and red, green and blue plastic filters. At the time we thought digitized images were absolute magic, even if they were a little blurry at the edges. Who cared that it took over three minutes to complete a scan in high resolution mode?

Several years later, we have the option of using numerous video input devices. There are frame grabbers such as the Vidi range from Rombo, and certain video boards also have frame grab functions. The disadvantage with these systems is that you still need a video camera. The better (read more expensive) the camera, the better the result.

In these days of "high quality imaging" you can consider Super VHS or Hi-8 to be at the bottom of the quality spectrum. A good SVHS camera will set you back a minimum of $2,000, and then only supply the equivalent of a 400/450 line resolution screen, which is JUST acceptable for low-end video work, but hopelessly under the quality required for desktop publishing. Add another $400 to $800 for the frame grabber, then don't forget the lighting and a tripod, and you'll find there's very little change from $3,000.

Now for the revelation! There is a cheaper, and much higher quality alternative. It's called a flatbed scanner.

A flatbed scanner is basically a sophisticated photocopier. In a photocopier you place the thing to be copied on the flat glass area and press the button. The item is scanned and it is then presented to you as a black and white or colour paper copy. A flatbed scanner, on the other hand, uses software control to send the scanned information directly into a computer for the user to manipulate.

The overall advantage of using a flatbed scanner is that it is a complete image input device; no other hardware is required. The output resolution from a flatbed scanner can easily be three times that supplied by SVHS or Hi-8 video cameras, and it is usually cheaper than the camera/grabber combination. Flatbeds also take up less room, (no tripods or lights), and they are less time consuming to set up.

The only real disadvantage of using a flatbed scanner is that you can only capture two-dimensional objects, whereas with a camera you can digitize all manner of three-dimensional items. If you find that most of your imaging work deals with paper, then you should seriously investigate a flatbed scanner.

Road Testing a Flatbed

A recent arrival to the world of Amiga imaging is the Migraph MS1200 and MS2400 24 bit colour flatbed scanners, the latter having a transparency scanning option. For this review I will concentrate on their base model,

the MS1200.

The scanner offers four scanning modes; 24 bit colour (16.8 million colours), 256 grey levels, monochrome halftones and also line art. The scanner measures 50cm x 36cm and is constructed from high impact plastic in two-tone beige. The actual glass covered scanning area is 22cm wide by 36cm long, slightly larger than a foolscap page. The lid of the scanner is double hinged so that it can be bent when working with thick bound documents or books.

If oversized documents become a problem, the lid can be easily removed to accommodate them. All cabling, including a SCSI termination block, instructions and software is also included.

Most flatbed scanners connect to your computer via a SCSI port, and the Migraph is no exception. If your system does not contain any SCSI devices (the Amiga 1200 for example uses the IDE standard), you will need to purchase a SCSI card if you wish to use flatbed scanners.

Because the scanner provides both a 25-pin and 50-pin SCSI connector on the back of the unit, you can put it anywhere in your SCSI chain. All Migraph scanners are shipped with their SCSI ID number preset to 4, but you can change it if it clashes.

The Migraph is not internally terminated, and if it is the first, last, or only device in your SCSI chain you must also connect the supplied terminator block between the 50-pin connector on the rear of the scanner and the cable running to the computer.

The MS1200 uses the three pass method; the scanning head contains three neon tubes, red, green and blue, so for colour scanning the unit has to scan three times to gather the RGB data for an image. Monochrome capture only uses the green neon during a single pass. A full length 24 bit scan takes one minute and fifty seconds to complete, and consumes 7.67Mb of memory, whereas the equivalent 24 bit scan of a standard 15cm x 10cm photograph only requires 26 seconds and 960k.

The Software

The scanning software, supplied on a single disk, is called ColorKit Pro and installation is relatively straightforward using Migraph's proprietary Install utility, although I would have preferred Commodore's install program, which should be the standard for all Amiga software.

Scanning in 24 bit colour or 256 greys requires a lot of memory to store the images as the DPI (Dots Per Inch) increases. For example, a 24 bit scan done at 150DPI on a legal sized image (21cm x 35cm) will result in a file at least 8Mb in size.

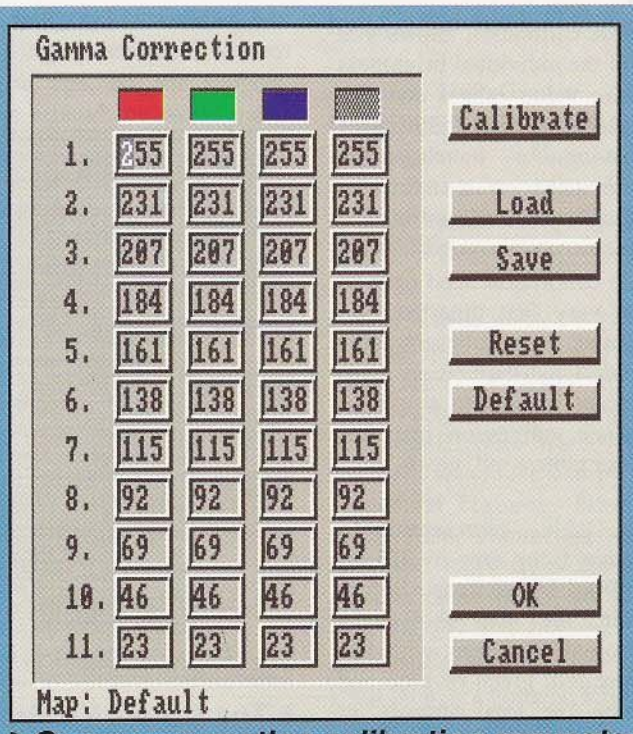
For this reason, the ColorKit Pro software uses a caching system to handle the system and hard disk memory. This management system is transparent to the user and automatically takes over when there is not enough system memory available for a task.

The memory manager shuffles information that is not being currently used in the system memory and transfers it to hard disk in order to free up RAM for the current task. It continually shuffles information back and forth as needed.

The trade off is that caching to the hard disk is slower than just using system memory. The only thing to remember is that the hard drive must have sufficient free space.

Scanner Calibration

When an image is scanned, ColorKit Pro stores each pixel of a colour image as three intensity values, one each for red, green and blue. Each value can range from zero to 255. Greyscale pixels are



Gamma correction calibration requester

stored as a single intensity value inthe same range.

ColorKit Pro provides brightness and contrast controls that affect the whole image by globally increasing or decreasing these values. While these controls can help improve the image, you may lose detail. Often, greater control over image brightness and contrast is needed. This is where gamma correction or calibration comes in.

Calibration is a process used to correct for any variations in the image data received from the scanner. There are two reasons to calibrate a scanner. The first is to account for any variations in the hardware itself. The second is to have more control over your image when it will be displayed or printed on devices that you know are inaccurate.

While all scanners are calibrated at the factory, most will sense shades of grey and colours slightly differently. Calibration helps to correct for these inaccuracies.

Gamma calibration allows you to control the individual brightness of specific value ranges for red, green, blue and grey. So rather than having to increase the brightness or contrast over the entire image, you can control it in more specific colour ranges.

While calibration need only be done the very first time you use the scanner, expert users may create individual calibration maps for different images to suit their needs. Each calibration map has four colour tables; red, green, blue, and grey.

Each table, representing a value range from zero to 255, is divided into 11 sections. Before calibration, the map shows the values from 100 to zero, with 100 being pure red, green or blue and zero being the total absence of colour.

In the greyscale table, the values reflect the greyscale strip, where segment 1 (pure white) is zero and 100 represents segment 11, pure black.

After calibration the map values will reflect any changes the software had to make to adjust the colours or greys. The Migraph scanner comes with a photographic greyscale calibration strip which, when input via the scanner, will adjust calibration accordingly.

The Requesters

The ColorKit Pro software contains two custom screens, one for the display screen and one for the tool menu. All commands and requesters are accessed through the tool menu buttons; there are no drop down menus.

Dither

There are eight dither patterns for scanning monochrome halftones. Each dither has a different effect upon the image. It is strictly a matter of trial and error as to which dither will produce the best results for a given image.

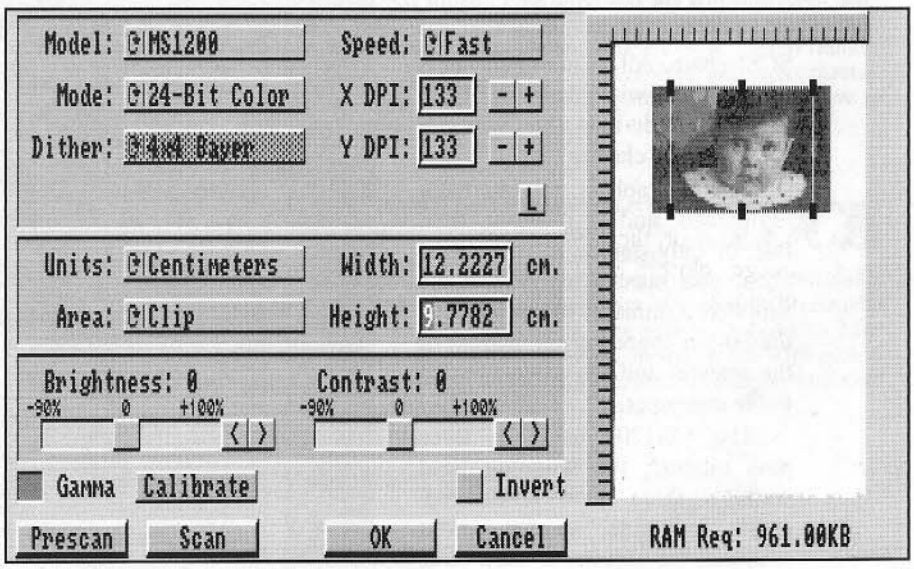
DPI

There are two DPI fields, one for X (horizontal) and one for Y (vertical). The DPI values are displayed in black when they reflect a value in the optical DPI range of the scanner. Once the value goes past the optical range, which means the software has to stick in extra pixels, the DPI value will be displayed in a different colour.

Aspect Ratio

When scanning an image for video use, you must select the Pixel Aspect Ratio for the particular screen display mode you wish to use. Once a ratio is selected and the clip box size determined, the clip box will remain this ratio. Should the clip box be resized, the scan DPI will change so that the clip box width and height (in pixels) is maintained.

You can also lock the X and Y DPI values so when one is edited, they both change. Having the same X and Y DPI values will provide a square aspect ratio (1:1), used by most high resolution printers.



The ColourKit Pro Scan settings requester

Prescan

This produces a low resolution preview scan of the entire scanning bed. Once the preview scan is complete you may select the area that you want for the final scan. On AGA Amigas the preview scan is displayed in 64 colours; older machines use eight colours.

The Display Menu

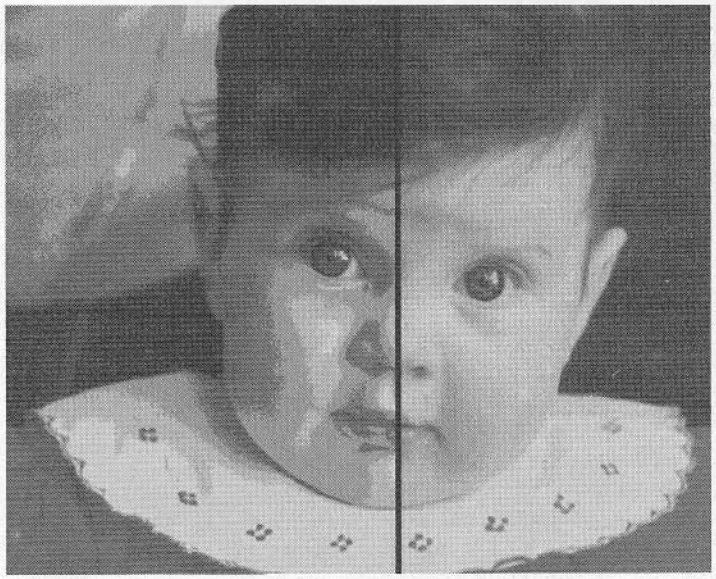
The display requester lists the available screen display modes. The ColorKit Pro software does not currently support direct display on any 24 bit video cards, although drivers are currently being written to support the Piccolo and Opalvision cards.

Error Correction

This option provides greater colour trueness when displaying an image using fewer colours than are in the raw image data. In almost all cases it greatly improves the image display, by giving the illusion of more colours than are actually present.

Because the normal Amiga screen has a limited palette, the rendered display (without error correction) may look quite different to the original. The difference between the pixel colour in the raw data and the display is referred to as the "error". ColorKit Pro's error correction uses dithering to diffuse or spread out the error, thereby producing an image closer in colour to the original. While dithering does produce a better looking image, it is sometimes at the expense of image sharpness. This is because all the pixels in the image are adjusted, not just a few of them.

High Quality mode is another way to improve the look of the displayed image. On AGA machines, High Quality provides a better looking image because the software works harder to select a better colour match from the 16.8 million colours available.



Left uncorrected 16 colour, right error corrected

Depending on the speed of the computer's processor, unaccelerated A1200 owners may need to allow a lot of time for this option.

On a non-AGA machine, the High Quality option will produce little noticeable improvement in the image and will take a lot more time to calculate.

Saving

ColorKit Pro allows you to save in all IFF formats including 24 bit, and you can also save images in the TIFF format. When TIFF is selected you have the option to choose LZW file compression to reduce image file sizes.

The Info Requester

The Information / Option requester is where the hard drive caching path and cache size is set. The scanner's SCSI ID number and SCSI device are also listed. The default SCSI device for the Migraph scanner is "SCSI.device", but owners of GVP SCSI controllers will have to change the name to gvpscsi.device, otherwise the scanner will not operate at all.

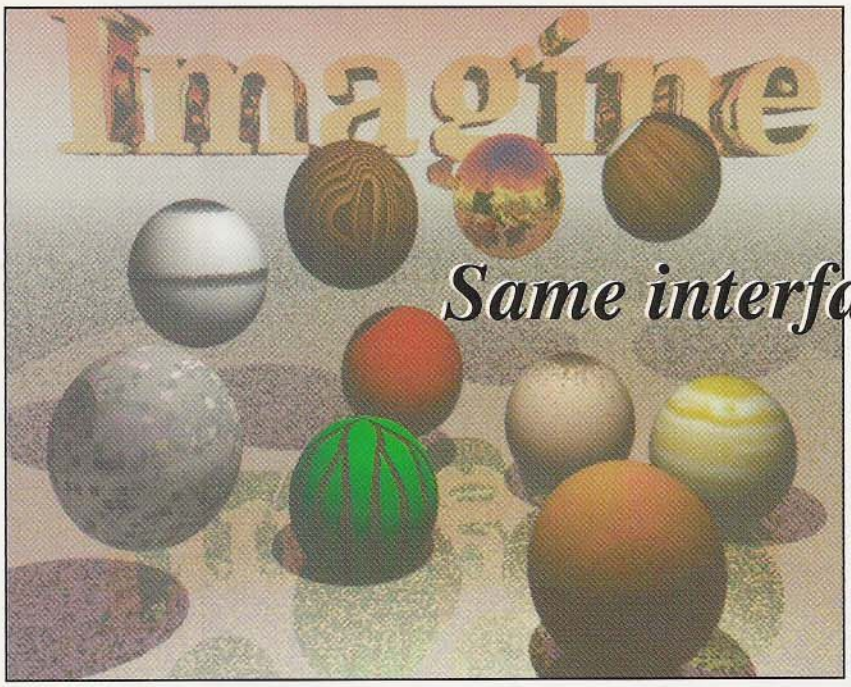
This problem has been overcome with the latest version of the ColorKit Pro software, which has a SCSI test utility which tells you the SCSI number (and name) of your controller, as well as the SCSI number of the connected scanner.

Bonus

As well as the ColorKit Pro scanning software, Migraph also supply an Optical Character Recognition (OCR) program. This is a powerful, intelligent, full featured text reading application. Accurate OCR is the fastest way to convert printed text into an ASCII text file which can be loaded directly into word processing and desktop publishing programs. A full review of OCR will feature in an upcomming issue of ACAR.

The Migraph MS1200 flatbed scanner retails for $2,179.00 and is available from Comprepair. For further information call: (03) 326 0133.

❑



3.0

Same interface, better effects

By Peter J. Ward

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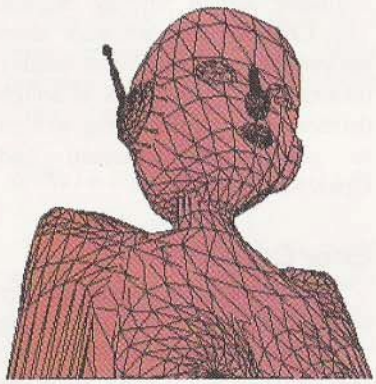

Imagine is somewhat unique among Amiga 3D modeling and animation programs thanks to its sheer longevity. In its infancy, nearly ten years ago, Imagine was known as Silver, and later Turbo Silver. It had a very esoteric interface (I'm being kind), but also capabilities no other rendering program could match.

They included sophisticated brush and texture mapping, plus a good range of modeling tools. Silver's animation editor, however, was clumsy. This was addressed in the next update, simply called Imagine, and the latest of many incarnations is Version 3.0.

Previous users of Version 2.0 will find, on the surface at least, not a lot has changed. Looking a little deeper, however, reveals some significant enhancements.

What's new?

At last, Imagine users are blessed with a functional manual, all 352 pages of it. There is a table of contents, glossary and index. Ten chapters take users through the functional elements of the program, with many tutorials to illustrate modeling or animation features. Numerous complex operations, such as brush mapping, have been explained well and in more detail, but there are still some glaring omissions. For example, bit mapped font-object creation is not explained at all (refer to Manual Version 2.0), there is only a passing mention for animation-brush mapping, and the index is not very comprehensive. While several other features are simply glossed over, the manual is still a vast improvement over earlier versions.

The software is supplied on three floppy disks and installed via Commodore's Installer program. No difficulties here, though I have to ask, does anybody really use a rendering program without a math co-processor? If your answer is yes, you will not be disappointed, as a fixed point version of the program is also supplied.

The manual does not mention system requirements. This may have something to do with the fact that Imagine 3.0 is available in both IBM and Amiga versions, with one common manual. This is of little real concern, with differences only becoming apparent in available display options plus a few keyboard combinations. If you can use Imagine on an Amiga, then moving to a PC will be easy.

For Amiga users, I'd suggest a minimum of 4Mb of RAM, plus a hard disk and a math co-processor. An ideal platform would be a A4000/040 with 20Mb of RAM plus a removable hard disk drive. 24 bit display cards such as Opalvision and Firecracker are directly supported by the software. Both greatly enhance images produced by Imagine.

The Imagine programmers have retained the "quad view" object editing environment of the software. Objects are presented in

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simultaneous plan, elevation, side elevation and perspective views. There is one significant change here. Moving the mouse cursor to the perspective view and holding down the left button lets you rotate, pan and zoom around a 3D representation of the object in real time!

Oject Creation

For object creation and modeling, few programs surpass Imagine. To illustrate the point, page 91 of the manual has a simply superb object modeled by Alan Henry: a bee in flight. I tried to model a similar object using Real 3D (admittedly an older version) and gave up. The task proved to be too difficult for just one afternoon. Imagine has just so many good real world object creation tools that it almost invites the user to create similar complex forms with little or no impediments.

Object can first be "roughed out" using the forms editor (which has seen little or no change from version 2.0). Here a primitive form, such as a sphere, cylinder or cross-section such as an airfoil can be manipulated with ease. In the forms editor, points can be pushed, pulled, snapped to a grid and generally deformed at will with real time feedback. While the forms editor takes some getting used to, its relatively simple tools can be used to create some remarkably complex shapes.

Within the forms editor a technique called "key slicing" can be used to build up complex profiles, such as the fuselage of an aircraft or yacht hull. The program automatically computes the surface changes along the length of the object as its form changes from a circle to a square to a hexagon, for example. Once an object has been created in the forms editor, it can be saved and reloaded for further embellishment in the detail editor.

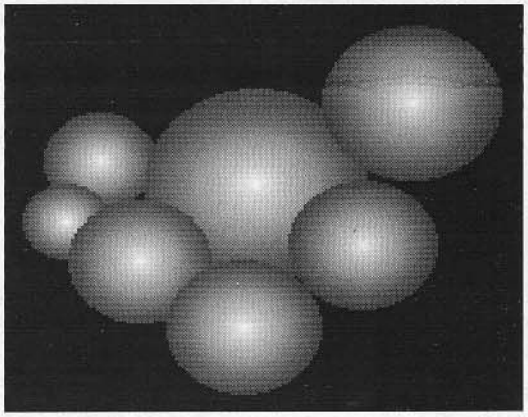
The spline editor is new to version 3.0. and it is here that smooth "cookie cutter" shapes can be made and extruded into the third dimension, for the edge of a lake or puddle for example. The main function for the spline editor is to create smooth 3D text or titles using spline based Postscript fonts.

According to the manual, just type the text, decide whether you want flat, beveled or rounded edges, and click; all done! Sadly, this is not the case. After loading several Postscript fonts and typing through the alphabet many, many times I could not get a single letter to load. I was frankly stunned by this bug.

There was a glaring need for Impulse to improve Imagine's text handling, especially when competing programs like Real 3D handle text so well. Postscript font support was an excellent solution (for Amiga users, CompuGraphic font support would have been even better), but as far as I can tell, it simply doesn't work.

By the way, the font saga doesn't finish here. In the detail editor, users of Imagine 2.0 can load a standard Amiga font, which can be automatically traced and converted into a 3D object. My copy of version 2.0 still does this well. Sadly, version 3.0 tells me that the font image is "blank" and produces nothing at all. In desperation I tried importing and autotracing a Deluxe Paint IFF text image, which worked. If the people at Impulse want Imagine to succeed, then a version 3.1 fix is needed here immediately.

Within the Detail editor, objects can be created from scratch, on a point by point basis. Primitive shapes such as spheres, tubes, cones, cubes and so on or a Forms object can also be loaded. The software now allows powerful



object deformations such as twisting, bending, stretching and smoothing. Objects can be conformed to a sphere, cylinder or user defined path. Bitmapped images can be applied to the surface of an object, resulting in protrusions and indentations on the face of the object which correspond to the grey scale intensity of the bit map (there is also a rendering process called "bump mapping" which should not be confused with this object creation tool).

The list goes on: there's a wave tool, that gives the surface of an object a wavy structure like ripples on a pond. Latticize transforms continuous surfaces into a grid object, ideal for forming scaffold-like structures. Flat objects can be extruded into the third dimension, such as lettering into 3D titling. Extrusions do not need to be linear either, they can follow a user defined path or rotation and be scaled in the process. Using this tool, objects such as flags, springs and snakes can be easily created.

A particularly powerful new operator is "particles", which converts the elements or faces of an object into discrete particles. These can be small cubes or spheres, or a number of other primitive forms, or a user defined object. Using particles it is possible to create an object, like a

whale for example, which is made up of hundreds, or thousands, of tiny fish. The possibilities here are immense, but the price is memory requirements and rendering time, which increase exponentially. Another new animation tool is the ability to give an object "bones". Bones are a series of user defined structures, rather like an object axis, that let an object with a continuous skin move in a fluid or organic manner. This tool allows animations such an man walking or bird flying to take on a natural movement that is simply not possible using any other package.

Textures

The Detail Editor also lets you give objects some remarkable textures and qualities. Imagine 3.0 now has a simply vast range of textures. The list includes over one hundred predefined surfaces including: bathtile, oldbricks, veneer, ghost, coolfire, bumpnoise, deathstar and beammeup. Users can also modify any of the above textures, or simply create and save their own with an appropriate label. If that isn't enough you can also apply a bit map, such as an image of a Coca Cola label captured by a scanner or drawn in a paint program, to any object.

Both texture and bit maps can be applied in a number of ways. Textures can now be applied to selected faces of an object, rather than the whole object as in previous versions of Imagine. Version 3.0 goes one further and also allows "texture mapping", or application of a texture to an object within user defined dimensional boundaries and wrapping techniques, much as brush or image maps were applied using earlier versions of the software. Imagine 3.0 supports colour, reflective, filter and altitude maps in single or unlimited multiple combinations.

For example you could colour map a frog skin texture to a model of a frog (or prince), and then give the object a rough texture by also applying a altitude map of this or another texture or bit map image.

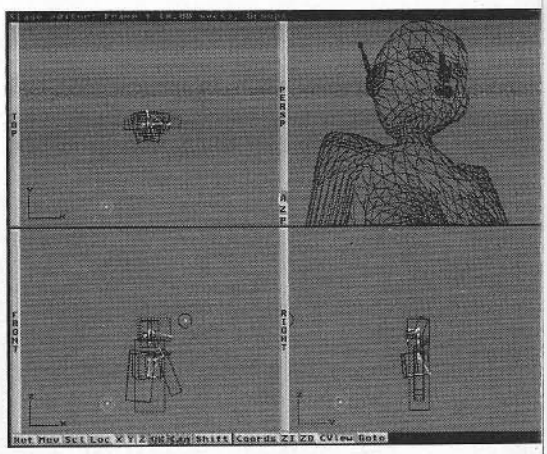
Perhaps the modeling coup de grace is Version 3.0's ability to load and save .DXF format (ie: AutoCAD) objects. There must be gigabytes of bridges, buildings, aircraft, parts and widgets floating around in IBM cyberspace. They can now be accessed by your Amiga, rendered and animated, but since I'm not an AutoCAD user, I couldn't test whether the translation of these files does in fact work. Enough said for now.

Animation

Imagine 3.0 has been designed with a strong emphasis on animation, which is handled by the Stage and Action editors. There is also the cycle editor, again unchanged from earlier versions of Imagine but still very useful for creating repetitive or cyclic motions. The stage editor is where individual objects and lights are placed and viewpoint established. By simply clicking on the camera and moving it around the stage, a simplified version of object positions and perspectives is updated in the perspective display of the quad view.

This impressive feature lets the user quickly zero in on just the right camera perspective, or staging of objects.

Imagine now supports lighting and camera "lines". These are lines drawn in the quad view that symbolise the current field of view of the camera or the area illuminated by a light source. Both greatly speed up the process of creating a rendering or animation, as you no longer have to wait for a complete render to discover exactly how a camera frames the scene or where a spotlight is



placed on the rendering stage.

The animation creation process has also been given a boost in Imagine 3.0. You can quickly preview object and camera movements, and you can specify via a "quick stage" option that only object bounding boxes be drawn in the perspective view when creating a wire frame preview. This option gives a fast rough idea of relative motions, letting you concentrate on the animation process as well as create complex animations that would have previously been bogged down by superfluous details.

There is also a "bluing" option: a 3D version of the onion skinning that 2D cel animation packages use, which displays ghosts of the objects from previous frames on the current one.

Imagine 3.0 offers excellent control over object and camera motion. Objects can be "key framed", given linear or spline based motion, made to follow other objects (as can the camera and lights), accelerated or decelerated between key frames and made to follow a used defined path. Objects can also be morphed in any of a number of ways; colour, texture, transparency, reflectivity, size, shape, in fact any attribute, may be smoothly altered over time. There are also up to four special effects that can be

applied at any one time to a particular object. The (often) self explanatory names of these include boing, explode, fireworks, flash, grow, ripple, rotate, tumble plus a new effect called "particles", a sophisticated version of explode. Here an object can be shattered either wholly or partly. The resulting fragments can be allowed to fall, be caught by a user defined breeze or hurricane, plus bounce off a ground plane.

Within the Action editor users can define a number of parameters; the number of frames within an animation, the general level and colour of ambient lighting, whether or not shadows are cast by various lights, image files which show in object reflections, backdrop images and so on. Users can also define the amount of "global fog" in a scene, colour of the zenith, horizon and nadir plus the density of stars in the Imagine sky.

A new addition is object association. Here an object is given a relative distance from and orientation to a parent object. A camera could be associated with an aircraft, allowing it to pitch and roll as it follows its subject from a pre-defined distance. More interestingly, associations can be amended as an animation progresses, such as a flock of birds following a leader, which itself is following a motion hierachy. Also new is the type of lighting; light rays can now emanate from a point or parallel light source, though the latter does not cause penumbral shadows.

Also new is camera depth of field. This isn't mentioned in the manual, but there are a few notes on the program disk which help you explore this powerful feature.

Objects can now be assigned "states". For example while creating an object, it could be given a green colour and saved as one state. It could then be changed to red and saved as another "state" of the same object, with the transition taking place over one or several frames when called for via the action editor.

Lastly, objects can be placed on a specific level or "layer" of an animation. This tool is intended to speed up the animation creation process by hiding an object that would normally be drawn by the renderer. This greatly speeds up test rendering of complex scenes and keeps the whole animation process flowing by making it possible to concentrate on specific elements within an animation.

Preferences

Imagine 3.0 offers users a good degree of control over the editing environment via the preferences editor. Here you can define screen colour and resolutions, gadget functions, quick rendering mode, antialiasing, number of reflections in ray traced scenes and various function key operations for each of the editors, among others. Most of the Imagine operating environment can be customised and saved with or for specific projects.

Similarly, in the project editor, users can define the type of rendering or ray tracing method the program is to use. These can range from a simple wire frame to a photorealistic rendering of a scene. Imagine has changed little here, except for direct Opalvision 24 bit display support and IBM PC format images and screen resolutions. Image sizes can be up to 16,000 by 16,000 pixels, making Imagine an excellent tool for film applications, though one does wonder just how long a 16,000 square pixel image would take to ray trace on even the fastest Amiga or PC. Even modest 2000 by 1700 images, ray traced by Imagine 2.0 for the now defunct Professional Amiga User magazine, took eight to 24 hours on a 25MHz 030 Amiga.

Apart from the manual, a book could also be written on the features of Imagine. The program is vast, and many of its features have not been mentioned here. Imagine 3.0 is not a simple program for new users to master. Hardened Imagine 2.0 users, however, will find the step to 3.0 easy. There are still some features I'd like to see, such as collision detection, momentum and external forces such as gravity applied to whole objects, in addition to the particle special effect seen in this latest release. Penumbral shadows associated with objects instead of light edges would be a welcome addition. Perhaps these will be seen in the next release. There are also the Postscript and bit mapped font problems.

But for now, consider the following animation. Darkness. A shaft of light appears, pans across a marble floor, as does the camera, which reveals a hand floating just above a pedestal. Zoom in. The hand smoothly opens, revealing a ball. The open hand rotates, causing the ball to fall toward the pedestal. The ball, as it bounces, gradually turns into an apple. As the apple is about to fall a second time, it gradually turns into solid glass. A bullet pierces the apple in slow motion. It fractures into pieces which begin to fly in all directions. Zoom out. The pieces are seen to be carried by the wind as they fall to the floor and bounce once or twice more, for good measure. Hardly in the same league as Spielberg, but fun to watch just the same.

I'm trying to think of another software package that can accomplish all of the above for only a few hundred dollars, but for now I just can't Imagine what it would be called...

❑

Happy Reader!

I recently bought your magazine, and I found that it is a lot better than some of the English magazines with cover disks.

ACAR isn't full of stupid game reviews and advertisements; it's full of interesting reviews. And it's Australian! I didn't even know an Australian Amiga magazine existed!

Would it be too much trouble to put a cover disk on the front? It's not necessary, though; all the stuff inside makes up for it! I will continue to buy your magazine - keep up the good work.

Jay Paul, St George Qld

Ed: Thanks for your support, Jay. The issue of the coverdisk is an endless saga; basically, we've already got the Hot PD companion disks every couple of months, and people who don't want them don't have to order them. Adding a disk to every magazine considerably increases distribution costs, not to mention the expense of having all the disks duplicated.

We hope you like the new ACAR format - more pages, but not more ads!

Hard Drive Help

I own an Amiga 500 with 1Mb RAM, an external floppy drive running Workbench 1.3. I'm now considering purchasing a hard disk.

I want a drive that will let me store Workbench and a couple of word processors, but the shops keep trying to talk me into buying really expensive units - "the bigger the better", they often suggest.

Furthermore, I can't understand the jargon regarding SCSI, etc. I can't afford a "mega" drive, but I don't want to make a mistake either.

Ed: The classic cheap A500 hard drive is Commodore's old A590, which in standard trim comes with a 20Mb XT-IDE drive and provision for 2Mb of RAM expansion. The A590s haven't been made for a while, but there are plenty around in the second hand market.

A second hand standard A590 sounds as if it'd suit your needs, and it shouldn't cost more than a couple of hundred bucks. The old drives aren't dreadfully reliable any more, though, so you might like to consider an A590 with a SCSI drive in it.

The A590 has a SCSI controller as well as the XT-IDE, and can talk to any SCSI drive, even today's multi thousand dollar monsters, so you can plug as big (or as small) a SCSI drive into it as you like. If it's a 3.5 inch drive it'll fit inside. The advantage of going this way is that if you upgrade to a more powerful computer you can use the same drive.

Amiga Expertise

As a moderately experienced computer user, I'm occasionally called upon by my colleagues to help them sort out problems they're having with their Windows (sound of mouth being vigorously washed out with soap) computers. I wonder, if the tables were turned, how good an average Windows user would be at helping us!

Head to head competitions are common for comparing hardware and software. Why not run a head to head with "liveware"?

Get a proficient Amiga user and a Windows user, swap their computers and give them some obscure operating system problem to sort out with only the manuals and their experience with their own platform to help them. Who would come out ahead?

You could give marks on originality, speed, elegance of the solution and general demeanour at the end of the day. It wouldn't be entirely scientific, but it might be fun!

Tim Polmear, South Hedland WA

Ed: Since we produce both PC Review and ACAR, we've got a pretty good idea of the sorts of people that use IBM compatibles and Amigas. Overall, you're right; Amiga users tend to be more competent operators than IBM people. A rough analogy would be the mass of people who buy an "ordinary" mass market car, and the smaller group of aficionadoes who go instead for an unusual vehicle - De Loreans may not be very well supported at the local garage, but they're certainly more advanced!

Don't take this as a universal affirmation that Amiga users are all experts and IBM owners all ignoramuses, though!

Pro Page Paralysis

I have an Amiga 2000 with WB2, a 40Mb hard drive, a VXL30 accelerator and an Octoplus memory card with 2Mb of fast RAM. My problem is that after quitting Professional Page 4.1, my computer crashes, giving a software failure with error number 80000003. What do you think could be causing this?

Darren Healey, Heathridge WA

Ed: We use Pro Page 4.1 all the time, and we occasionally get recoverable alerts or worse failures. One of Pro Page's trademarks is the recoverable alert on quitting, which in our experience doesn't crash the computer but keeps recurring until you manage to click on the

Workbench, for some bizarre reason.

Your problem, however, is odd, since it's so repeatable (the wonderful thing about most Pro Page crashes is they're completely unpredictable). An 8000000x error number is symptomatic of a program that's not written properly for Workbench 2 (these failures used to be very common, when WB2 was young and a lot of old, badly written programs were still around), but Pro Page works pretty much OK on most WB2 systems.

It could perhaps be because you don't have any 32 bit fast RAM, and not much 16 bit fast RAM, but we're only suggesting that because it seems to be the only odd thing about your system.

Attention George Kimpton!

Thank you for the publicity in your article "DPTute: the DPaint beginner's friend" (May ACAR). I did not find the article the least bit inaccurate, but I'd like to clarify several points.

DPTute is not intended for private use, where the owner has unlimited access to the DPaint manual. DPTute is designed for use in schools.

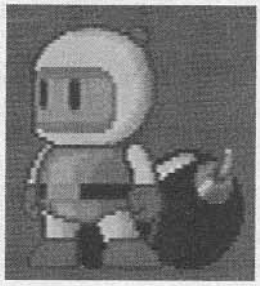
My partner and I are both Media Studies teachers, and frequently use DPaint in the classroom. It is impossible for all of our students to read the DPaint manual. It is also impossible for a teacher to provide extensive one on one instruction for each student.

DPTute is a manual substitute for students. It allows them the freedom to learn what they want when they want. They may read, view and print everything or simply refer to it occasionally.

Thank you for your review and your time.

Ross Williams, Partner,
T.O.A.D. Interactive Education

On Screen Q & A



Naughty Gareth!

I can't let your games reviewer, Gareth Powell, get away with his review of Sensible Soccer in the March ACAR. Sensible Soccer is probably the finest soccer simulation ever made.

The first point I have is Gareth's statement "...all the players have white skin and black hair." WHAT? Now, I haven't played the CD-32 edition, but it can't be much different from the disk version. If Gareth had bothered to look at the screen shot in the top left corner of HIS review, he'd have noticed that next to the players' numbers down the left are pictures of their heads which, with little trouble, can be altered to change the skin and hair colour.

Even if he didn't see the screen (which he would have done, by playing the game), he should have seen how to do it in the instruction manual. This manual, by the way, also mentions that you can press space to save highlights to view at the end of the game and pressing R shows the last few seconds of the game. I also believe that the view from high above the ground is one of the best and most original views I've seen.

Sensible Soccer might not live up to the high CD standards of other games, but it IS the best soccer game available at the moment.

Robert Fleming, Clarence, Tas.

Tut, tut Gareth!

Am I missing something? The Kingmaker review, May ACAR, mentions a SoundBlaster card. How do I install it in my A500?

Maybe Gareth thought he was writing for PC Review?

Thanks for a great mag. I'm really enjoying the recent improvements.

Aoin Blinkhorm (this probably isn't the person's name, but it's what his or her signature looks like)

Ed: Gareth Powell has been slapped on the wrist. He promises not to do it again.

Loading Blues

I have a problem with the CD32 game "Whales Voyage" not loading from the same point in the game every time. It always crashes when you go into "manual" battle. I'd like to know if anybody knows of this problem.

This is my second CD of the game, so I believe it's a software problem. is there anything I can do?

Robert Brown, Bohle Qld

Pricing Feedback

This is in reference to the letter from Michael Saunders of Salisbury, SA, in the June ACAR.

He asks why Microcosm for CD32 costs $129 in Australia when he's seen it advertised in the UK for 30 pounds. What Michael could not know is that Microcosm costs the importer a whopping 45 per cent more than any other CD32 title. The reason is that the

development costs were much greater than those for most titles.

How it can be advertised in the UK for 30 pounds is anybody's guess. Perhaps it was distressed stock, perhaps a loss leader to get the buyer in - who knows?

Michael comments that Liberation sells here for "just $69". What he does not say is that the usual advertised price of Liberation in the UK is 35 pounds! Until very recently the exchange rate A$ to UK pound was 2.2 - add shipping costs and the price in Australia should have been at least $89.

The importer, Hotpoint Interactive Entertainment, always tries to bring in enough stock to keep the prices down.

Remember, however, that here in Australia we're buying for a market of just eighteen million people - the UK market is more than sixty million! Some larger software houses in the UK buy more stock for themselves from the software producers than we do for the whole of Australia!

Market size has a major impact on pricing. You'd notice that generally, even European software is cheaper in the USA than here in Australia. Again, the reason is the size of the market.

Michael's comment that consumers should vote with their wallets and buy overseas will achieve only one end - prices for quality software in Australia will rise significantly.

Howard Needleman, Hotpoint

Steel Sky Puzzle

I am stuck in Beneath a Steel Sky. I've tried just about everything, but I can't get past the hole in the tunnel where that monster is. What do I have to do?

Parry Tsamourtzis

Ed:If anyone can help Parry with this problem, feel free to write in and tell us. We'll publish the answer. Sorry Parry, but no one here is a big Beneath a Steel Sky player, and we just didn't have the time to check it out.

Shrinking entertainment?

What's the story with the entertainment section of the mag? It's gradually been getting smaller in the last few issues, and in June it ended up with a meagre 12 pages. This is contrary to the direction of the Amiga lately, with the CD32 being Commodore's driving force. If you're going to expand the magazine, make the first thing to grow the games section.

While I'm writing, I'd also like to add my piece to the debate over the price of games in this country. I consider $50 to $80 to be a sensible price to pay for a full price game - I've even noticed the occasional game retailing cheaper here than in Britain. But what really annoys me is that there's no budget range here.

Fly Harder and Stardust, both wonderful products, were written specifically for budget release but they're full price here. Is this Hotpoint's doing?

Whoever it is, they're not only doing the dirty on us, but on the software houses as well, since they made these games with the intention of them being sold cheap. Even cheap re-releases which are being sold by the truckload in Britain are a rare sight here.

Finally, I noticed in your reply to Tim Polmear's letter in June that you seem to think a magazine can can either be entertaining or informative. Rubbish! A bit of artistic flair never hurt anyone's retina and is especially suitable for the entertainment section. The content remains the same, it just looks better. Anyway, thanks for the air time; keep up the (mostly) good work.

Steven Burns, Sydney NSW

Ed: Well, Steven, you'll no doubt be overjoyed that the games section's become smaller, while the mag continues to grow! The reason for this is that we don't quite agree with you when you say that games are the Amiga's prime market.

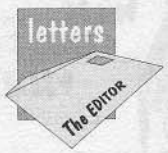
The whole point of the CD32 is it's NOT just another Nintendo or Sega; it's a games console, sure, but it's also a CD player, a full multimedia computer system with the addition of a keyboard and mouse, and even an MPEG video player with the module. Check out our review of Video Creator in this issue for an idea of where CD32 software is going, and what the system is actually capable of!

Furthermore, dedicated game players already have huge, glossy magazines dedicated to them. If you want the hot gossip on the very newest Euro-games, go buy a Euro-magazine. They run on far bigger budgets than us, and we're not about to compete. We'll cover the more interesting game releases, certainly, but we'll leave the total overview to those who do it best.

On the subject of design, what do you think of the current incarnation of Amiga Review? It's now being designed by the same team that do PC Review and used to do Pro Amiga User - feedback is welcome!

❑

Send your letters to:
PO Box 288,
Gladesville NSW 2111



Help Line

By Greg Wall

Dear Helpline, this is the first time I have contacted your magazine. I need some help and advice. I currently own an A1200 with a 1942 monitor and MBX 1200 RAM card with FPU and 2Mb fast RAM, and an external fax modem.

I am going to start a university degree in 1995, and the content requires that I own an IBM. I will not part with my Amiga, as it has a far greater potential than the IBM. Is an IBM emulator card available for my A1200? If so, what does it cost?

Finally, I seem to have an intermittent problem with my A1200. Sometimes when I turn it on I get the ROM screen with the disk moving towards the drive instead of a normal boot. Can you help me?

Darren Kenway

ACAR: *As far as we know there is no A1200 hardware PC emulator available. The closest thing we have in Australia at present is software emulation in the form of PC-Task.*

PC-Task is an Aussie made product which uses software trickery to enable you to run basic IBM programs and use MS-DOS. Unfortunately, though, it doesn't yet allow you to run Windows. Quasar Distribution, the distributor of PC-Task, promise a Windows-capable version soon.

There are hardware emulators available for the A500, and several bridgeboards out for the A2000, A3000 and A4000.

The problem with your hard drive sometimes not booting may just be because the drive's a little slow off the mark. Sometimes the controller checks for drives before the drive has completely powered up. If this happens regularly then get it checked out, but if it only does it now and then you probably don't have anything to worry about.

Dear Helpline, I am writing in the hope that you might provide some insight into the current "Stalemate" situation I find myself in. I am fairly new to the Amiga in that I have owned an Amiga for the past couple of years or so and now own an A1200.

My interests vary, but I have only a rudimentary knowledge of "how things actually work". I have three young children and consequently little spare time, but would like to learn much more about how the Amiga works and about programming.

Finding that there there are many popular programming media such as BASIC, Blitz Basic, AMOS, C, Assembler, AREXX, CanDo, and probably many more, I am somewhat unable to decide which would be the best one to invest my time in.

As mentioned, I want to learn how the Amiga actually makes things happen, such as saving, printing, making directories and so on. Even though CanDo can do all these things (I bought a copy last year), I am unable to determine which is the best source of information and as I'm not the brightest kid on the block, I would appreciate a degree of simplicity.

I do want versatility as well, which may complicate things somewhat. Do you have any suggestions? Are there any publications which clearly explain the composition of libraries, the use of directories and why CLI says "Unknown command" when I type in run etc?

Are there any courses available for programming on Amigas - or does one have to learn to program a DOS dinosaur first, and then come back to the Amiga later?

Friends advise me that BASIC is difficult, cumbersome and slow to operate. The magazines infer that assembly language is for advanced users - but with limited time available, how does one become an advanced user?

An ad which appears in the Jan 1994 ACAR for Blitz Basic 2 is a good example of an ad which would never persuade me to attempt to use that language. What on earth is a "User interface Generator", or a "Slice Control"?

Forgive my ramblings, but I hope you understand my frustration. If you have any suggestions I would be most grateful. By the way, I think CanDo is very good, but to use an analogy, "using a calculator will not teach you to add up". Thank you for your valued assistance.

Mr P. Reed, Mount Warrigal NSW

AMIGA TRAINING

PH: (02) 411-2108 FOR MORE INFO

ACAR: To begin with, programming is not easy. Most commercial programs on the market are the result of up to five years of continuous work and development, with experienced programmers locking themselves away, totally committed and living on takeaway pizza.

Years ago, programmers got around in white suits, were balding (from continuous tugging of the hair), and were considered either fruitcakes or geniuses. These days many languages are available (such as AMOS and Blitz Basic etc), to make it easier to program by taking out a lot of the laborious work, but they are still tools to help you with your work, a means to an end.

Programming is still not easy. It still takes a lot of hard work and dedication. From your letter it sounds like you need to work out what you want to do.

My advice (you did ask for it) is to work out what you want to do. Are you interested in writing games? Would you like to create an accounting package? Would you like to make some educational software? Decide what type of application you want to create, then select a language that is suited to that application.

Some languages are better at graphics, so they are better suited for games and anything that uses or manipulates a lot of images. Some are better suited to mathematical calculation, and are therefore good for programs that do a lot of number crunching.

Read the manuals, but more than anything experiment, start asking yourself "I wonder what would happen if I tried this..." or "How can I make this happen?" Join an Amiga user group, set aside "computer time" on a regular basis with some tasks to accomplish in that time.

Once you know what you want to do, talk to lots of Amiga dealers and users and get their opinions on what you need. But make sure you concentrate on one thing at a time and experiment a lot.

Dear Helpline, I have an Amiga 1200 computer for my children, as I feel that kids should be introduced to computers at an early age. It is set up in their room, my children are aged four, seven and nine.

The seven and nine year olds are fine with the computer, but the youngest has a tendency to "play" with the keyboard. I am a little worried that he may delete or ruin something when we are not around to watch. Is there anything I can do before he does some damage?
Rebecca Cowdroy, St Ives NSW

ACAR: In Workbench 2 and above there is a command in your C directory called Lock. This command enables you to lock both the Workbench and Work partitions of your hard drive to avoid any mishaps. The down side is that you cannot change or save any files to the drive while it is locked.

If the kids have any games that save high scores, or educational software that keeps a record of their progress on disk then this may create a problem. If they are just playing games from diskette then all should be fine.

You could perhaps show the two older ones how to lock and unlock the hard drive and make sure they don't show the youngest.

To do this you need to open a Shell window or use the pulldown menu and highlight "Execute Command". Type in "lock work: on" to lock your work partition. When you want to unlock it, type in "lock work: off".

You will probably want to do the same with your Workbench partition, so the command would be "lock workbench: on" or alternatively "lock sys: on" and "lock sys: off" to turn it off again.

CHALLENGE CORNER

Dear Helpline, I recently read a UK computer magazine and came across a letter that one of its readers wrote saying that he fitted a switch on his CDTV player which turned off the CDROM chips, allowing him to play all Amiga software. With the chips on, some Amiga games won't work.

I was wondering if you or any of your readers knew how this could be done, as I would like to attach one to my CDTV player. Also do you know of emulators that allow IBM CD-ROM disks to be played on the CDTV? I've seen one called "Amiga CD ROM KITS", which supports MAC and IBM CD-ROM Discs. Would this emulator fit on the CDTV player? Keep up the good work with the mag.
S. Robertson, Budgewoi NSW

❑

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Compuserve

By Wes Tatters

It seems not a day goes by without someone discussing the concept of an Information Super Highway. A global computer system which carries information and conversations, holds conferences, stores data and brings people together for all around the world.

What few people realise however is that access to such global computer systems is available right now. This article is the first in a series on CompuServe - one of the worlds largest computer networks.

This month we will look at what CompuServe has to offer, find at how much it costs and discuss why you should become a user. Over the coming months we will delve deeper into the world of CompuServe, talk to some of the people who use it and explore some of the many ways CompuServe can make your life more interesting.

So what is CompuServe?

Put simply - CompuServe is the world's most comprehensive online information and communications service.

CompuServe's over 1.8 million users connect to this system via their telephone line, using a computer and a modem.

In most cases this is a local call, with connections now available in all Australian mainland capital cities except Darwin and in many other countries around the world. CompuServe is continually expanding, with plans under way for additional sites and increased speeds throughout Australia.

CompuServe Mail

At its simplest level CompuServe can be thought of as a postal service. When a new user joins CompuServe they are given a unique ID and a Mail Box. By using Mail - CompuServe's internal postal system - users can leave messages, letters or even whole computer files in your mail box.

When you connect to CompuServe, any mail you have received can be read or downloaded to your computer.

This type of mail box system is not unique, as other networks including Internet and Fidonet offer similar facilities. Where CompuServe differs from these systems is that CompuServe Mail is delivered imediately. Messages sent by Internet mail take up to two days to be delivered, while Fidonet mail can take four days or longer.

In addition CompuServe users are not limited to sending mail to computers. For a small fee you can also send messages to fax machines, Telex systems and in a last resort, even to a postal address.

Surprisingly, this last option has some interesting uses for us Australians. A letter posted in Australia will take up to 2 weeks to be delivered to a person in the US. By using CompuServe, the same letter can be delivered in less than a week.

The CompuServe World

Waiting beyond Mail is CompuServe's world. This world is divided up into over 700 separate areas or forums, each related to a specific topic or interest. Over half of these forums are computer related with most of the major hardware and software suppliers operating forums devoted to their products. Many of these forums offer online support and product updates. Other forums are dedicated to professional users, covering topics as diverse as broadcast television [GO BPFORUM], small businesses [GO USEN] and legal issues [GO LAWSIG].

Other users are also well catered for through more general forums such as gardening [GO GARDENING] and local australian business [GO PACVENDOR], or which let you catch up on the latest music gossip [GO ROCK].

The information contained in CompuServe's forums can be divided into three main categories:

Messages

Most forums contain a number of areas where members can discuss items related to the forum's topic. Message areas operate in a similar way to CompuServe Mail, the difference being that the messages are sent to the forum message area instead of to a user's mail box.

All users who join a forum may read these messages and are actively encouraged to become involved in the discussions by replying to the messages - offering their own comments and opinions.

File Libraries

Many of the forums on CompuServe contain libraries of files which may be downloaded by users. The contents of the files in these libraries are many and varied. Some contain programs, while others contain pictures or maybe short stories and even the occasional job offer. The list is almost endless.

Conferences

A number of forums stage regular conferences online. At these gatherings, guests are invited to participate in a real time discussion with forum members.

Forums such as the Amiga User Forum [GO AMIGAUSER] regularly invite software developers and other bigwigs to these interactive discussions.

ONLINE Shopping Mall

CompuServe also provides users with a number of special services. The most notable of these is the shopping mall. This is one of the world's largest online computer shopper services.

At the mall users can purchase clothes, computers and even overseas holidays. Not all of the suppliers deliver to Australia, but then again not many Australians are in the market for a left hand drive Pontiac Firebird.

Real benefits can be found when looking for hard to find products such as books and software or when sending gifts to friends, relatives or colleagues in the US.

Databases

CompuServe also provides access to over 2000 services containing information on every topic imaginable.

Through services such as IQUEST, which alone can access over 860 databases, a user can request information by topic, date and special keywords. IQUEST searches its databases for all references and then gives the user the opportunity to view the information online or download it for future reference.

CompuServe Pacific

Australian users are well catered for as well. [GO PACFORUM] offers a place where Australians and a growing number of overseas users can join in a number of uniquely Australian discussions. Where else would you find a regular discussion about the drinks preferred by females in Australian bars?

This forum is operated by CompuServe Pacific - the company which, through its parent Fujitsu Australia, owns the distribution rights for CompuServe in the Pacific area.

FALNET

For many years, Australians using CompuServe were forced to make expensive ISD phone calls to the US. All this changed in the early 1990's when Fujitsu Australia licensed the rights to distribute CompuServe over the Fujitsu Australia Limited Network commonly known as FALNET. It is FALNET which most Australians now use to connect to CompuServe.

Internet

In recent months, another method of local connection to CompuServe has appeared on the scene. People who have a Internet account can now "Telnet" to 'CompuServe.com' and connect directly.

This has some advantages and disadvantages. The cost of connecting to CompuServe can be reduced, but this is often at the expense of performance, depending on the activity on Internet.

This lack of speed unfortunately makes connecting via Internet an unworkable proposition for most people.

Membership

There is no joining fee for CompuServe, In fact, if you phone CompuServe on 008 025 240 during business hours they will mail you a booklet containing a User ID and free usage credit worth $20.

The first time you use this User ID you will be asked to complete some details about yourself. This includes your full name and address and some credit card billing details.

Doing this provides instant access to CompuServe without the need to fill out application forms or having to wait weeks for your membership to arrive.

Alternatively, credit worthy individuals can apply for a monthly invoice.

Charges

CompuServe users are charged a monthly service and membership fee of $14. In return you receive a monthly CompuServe Magazine and a special quarterly CompuServe Pacific Magazine, and it allows you to send around 60 CompuServe Mail messages at specially reduced rates. As an incentive to new users, the monthly membership fee is waived for the first month.

In addition to the service fee, users are charged for the amount of time they spend connected to CompuServe.

This charge varies depending on the time of day, the speed your modem connects at and the services you choose to use. The charges are broken down into three general categories - Basic Services, Extended Services and Premium Services.

Basic Services

Services in this group include CompuServe Mail, The Electronic Mall, News, Weather, Sport, most games and the Groliers Encyclopedia.

Extended Services

Connection to all other forums and Services is charged at the

Extended Services rate. See the table on page 64 for a breakdown of these charges.

Premium Services

Some special Extended Services have extra fees associated with their use. In most cases this amounts to a fee for each request made to the Service. Currently access to US stockbrokers and requests for database searches attract this type of additional fee.

Getting Connected

To connect to CompuServe, once you receive your User ID in the mail, you will need a 2400 bps modem. Most modems on the market today are capable of running at 2400 bps. In addition users in the eastern states have the option of connecting using faster 9600 bps modems as well.

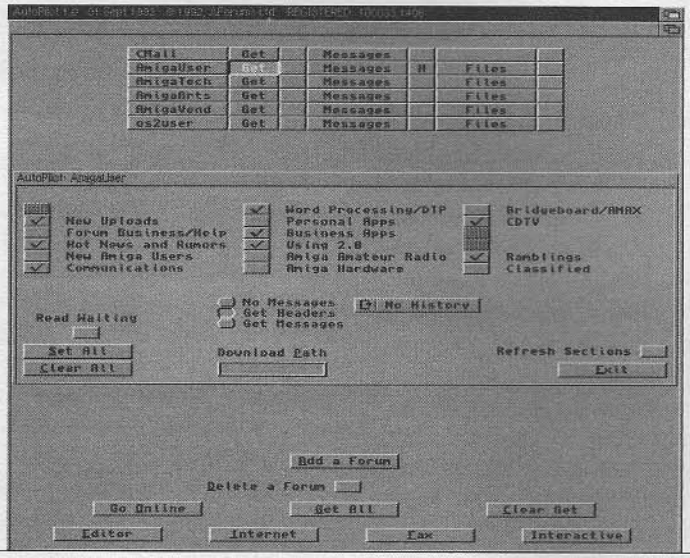
The only other requirement is some terminal software for your computer. Just about any communications program can be used to connect to CompuServe, but to get the most out of the system Amiga owners should consider using Autopilot - a program specially written for CompuServe.

Wrap Up

CompuServe is an enormous system with something to offer to every user. Yes, it does cost more than a local BBS system to use,

. . . continued on page 64

(We promise never to do this again!)



Flying on AUTOPILOT

The best way to make the most of CompuServe is to do a large amount of your work off-line.. To do this you need a special piece of software called a CompuServe Navigator.

Navigator programs allow you to automate the connection process. They can log on, send and retrieve mail, join forums and download files all without any outside intervention.

The advantage is that they can do this much faster than you. This can add up to large savings in connection costs, since the Navigator only connects to CompuServe for as long as it needs to. The CompuServe Navigator for the AMIGA is called AUTOPILOT.

To run AUTOPILOT on your AMIGA you require Workbench 2.04, at least 2 meg of memory and Hard disk. Technically you could run AUTOPILOT from a floppy disk however this is not recommended.

Using AUTOPILOT with CompuServe is simplicity in itself. Before connecting you tell AUTOPILOT what forums you want to Join, which messages to read, what files you wish to download and enter any mail messages you wish to send.

When you hit the GO ONLINE button AUTOPILOT will connect to CompuServe automatically, perform all the actions you have requested and log itself off. You can then read the messages which AUTOPILOT has retrieved, enter replies and start new discussion topics.

As an added bonus, because of the AMIGA'S powerful multitasking capabilities you can even read and write messages in one forum while AUTOPILOT is retrieving messages or down-loading a file from another forum. AUTOPILOT is a shareware program which is available for download from Library 9 in the Amiga Vendor [GO AMIGAVEND] forum.

The shareware demonstration version of AUTOPILOT allows you to JOIN all of the Amiga forum's and send and receive CompuServe Mail.

The Registered version of AUTOPILOT which allows you to join CompuServe's other forums can be obtained by registering AUTOPILOT online and paying agreeing to pay $69.95 US . The registration fee is billed to you CompuServe Account.

Watch for a full review of AUTOPILOT next month.

❑

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SCSI-II-FAST Hard Disk Controller	✔[2]	✔	NO	✔	✔	NO
Use any combination of 4MB and 16MB SIMMs	✔	✔	NO	NO	NO	✔
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[1]Using A4000 G-Force 040 RAM Kit. Accelerator alone supports up to 32MB. [2]Using A4000 G-Force 040 SCSI Kit.
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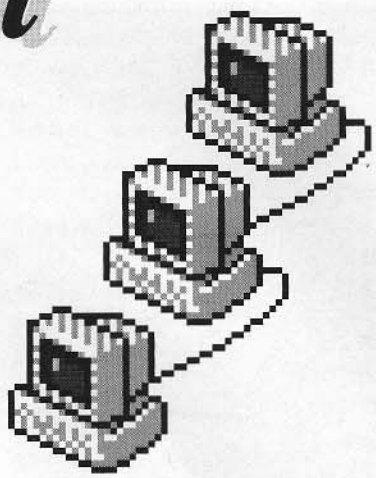
Software Review

A Navigation Guide to Networking



By Andrew Farrell

If your office, home or school has more than one computer, joining them together to form a network could save you time and money.

Networking was once the domain of seasoned technocrats, who rendered their services to hopelessly indebted companies for exorbitant fees. Today, the idea of sharing programs, peripherals, and files among several machines is something anyone with a reasonable working knowledge of Workbench could undertake.

What's possible?

Building a network of people and computers offers numerous benefits. You will save money by not having to double up on printers, or modems. Rarely used software can be installed on one computer, but run on any of the connected machines.

Files that need to be shared between several users can be passed around without resorting to floppy disks, and there's even the opportunity to have information on a database maintained by several people simultaneously.

A network, or LAN (Local Area Network), will require occasional maintenance by someone prepared to learn the basics. If that someone is likely to be you, be prepared to digest a large amount of new terminology.

Networking, although easier and cheaper than it has ever been, still has the occasional quirk or two. The complexity of installation will vary, depending on what other hardware you have installed, how many people and computers you want to involve, and the amount of control you want over who has access to what.

What's best?

In a smaller office, the best type of network is a peer to peer system. This means the resources on each computer can be made available to all. There's no need to dish out megabucks on gigabytes of hard disk space.

The alternative is a client/server network - one machine shares its resources with all the others. The server is dedicated to the job, so you can't use it for anything else. Normally it's difficult for a small office to justify turning one machine into the server. Client/server networks tend to be more complex, but more robust. They're also more expensive.

Understanding the basics

A network consists of some form of cable between each computer, and software to make talking between machines possible, as well as serving up the resources of each Amiga.

This connection will have a limit as to how much traffic it can handle - this is often described as the bandwidth. However, this term is not the same as the network speed.

For example a highway may have the capacity to carry up to six lanes of traffic, but the speed limit could be set to 80 km/h. Likewise, your typical network connected using ethernet cable can handle 10 megabits of traffic per second, but the speed of data moving from computer to computer is typically between 100K and 350K per second depending on the speed of the machines involved.

Add more users accessing lots of files, and eventually the traffic can become congested, dram-

atically slowing things down. Essentially what is happening is that users are in a queue waiting to get their turn at accessing a particular file. In a small peer to peer network of, say, four users, this is unlikely to be a problem.

Part of the network software's job is to sort out whether programs wanting to use something shared on the network are running on the local machine or at a remote computer, elsewhere on the network. Requests from another computer for a resource elsewhere in the network must be sorted and passed on.

It's all pretty complex stuff behind the scenes - but most of this techno-wizardy is hidden from you. After installation, all you have to worry about is managing the users, files and resources - and enjoying the benefits of not having to leave your chair when you want to use the printer connected to an Amiga in another room - or to fetch a file from your other computerin a different room.

Building your net

There are several alternatives to cabling up each computer. Cheap network software exists that will work with nothing more than a serial cable between machines. It's inexpensive, but it's also slow. Mind you, Apple's Macintosh Appletalk is little more than a glorified serial network. For sharing small text files, it's perfectly acceptable.

The next step up is a parallel connection. This is a more complex cable, and with the inherent limitation of a maximum 5m length between computers, it's hardly worth the increase in speed over serial (two or three times quicker). For information on this solution, see the article on PARNET following this story.

The next step up involves buying a network card. You could try ARCNET, which was very popular because of its low price a few years back. However, these days it makes sense to go straight to Ethernet - the standard way in which most networks are built today. Ethernet cards cost from $75 to $150 and come in two main flavours.

"Start with PARNET, down the track you could upgrade to envoy."

10base2 cards use coaxial cable (a bit like aerial cable for your television) with BNC plugs at each end. These connect to a T-piece which in turn plugs onto the network card connector.

The connector on the card is similar to what you'll find on the back of a good VCR. BNC connectors have a locking mechanism to hold the connection in place, but otherwise are basically a bigger, tougher version of yuor basic RCA style plug found on the back of any stereo for adding components such as a CD player, tape deck and so on.

10baseT and 10base5 are other forms of cabling and cards more suited to larger networks - so you don't have to worry about them.

Choosing an Ethernet Card

There are only a few Ethernet cards available for the Amiga. Your decision will not so much be a matter of choice, but a question of availability. We counted quite a number of different manufacturers who have shipped Amiga network cards at some point, including ASDG, Commodore, Hydranet and of course RMF, who make the Quicknet cards here in Australia.

Quicknet is the most available solution is called Quicknet, and includes software to get your network up and running. However, there are alternatives to the standard Quicknet software thanks to Commodore's SANA-II standard.

We'll be looking at Envoy, which was originally developed to work with SANA-II compatible devices by Commodore, next month.

The idea with this standard is that any physical connection between two machines which has a SANA driver, can be used. In fact, if you start with PARNET, down the track you could upgrade to Envoy, add some Ethernet cards, but still keep using your old PARNET connection!

Which Software?

There are several different network packages, most of which offer basic resource sharing. Using an Amiga, where the various things hanging off each computer are described as devices, it's actually fairly easy to come to grips with the idea of managing and accessing something not directly connected to your machine.

The better systems provide support for electronic mail between people on the network. Better security and management tools, and an easier interface for controlling user access to different parts of the LAN are also important.

The cheapest way to get started is with PARNET or the earlier and even slower serial version of the same software. Once you move on to the real thing, with Ethernet cards, the number of options grow to include Quicknet, Envoy, TCP/IP or Novell Client software.

We'll be checking out a few of these over coming issues, starting with Envoy next month.

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Networking with PARNET

"Trading up to a new Amiga - and keeping the old machine, opens up some powerful options."

By Heiko Wynen

Networks are usually associated with data processing in large corporations. However, as networking simply means making more economical use of resources, there is no reason why it couldn't be useful in a domestic situation.

As with cars, many people trade in their old computers when they upgrade to a new model. In the case of an Amiga 500, this may take about two hundred dollars off the price of a new 1200. While it obviously dampens the immediate effect on one's bank account, most people will certainly feel sad having to part with a machine which has served them faithfully for quite a while. Even worse is the fact that they probably only get back around one quarter of what they paid.

For those who can afford to buy a new machine outright, there is a very interesting solution. Keep the old 500 (or 2000, or whatever) and connect it via a parallel or serial link to the new unit. Then run a special networking program and you can do some amazing things.

ParNet, for example, is one popular system allowing budget networking on the Amiga, and as it's free, it can be obtained from a PD library for a small outlay and tested under real life conditions. In addition, it works at quite acceptable speeds as it makes use of the computer's parallel port instead of the much slower serial port supported by its cousin SerNet and similar programs. Parnet may only offer basic networking functions, but these should be sufficient for many to justify keeping their old machine.

Lots of Memory

One of the most useful advantages of working simultaneously with two computers is the overall memory available. Although programs won't be able to make direct use of both computers' system memory, it's no problem to configure one machine chiefly as a large RAM disk. Like other disk drives, including hard drives, it can then be accessed from the remote machine. To put it another way: Connecting a basic Amiga 500 and 1200 gives the operator the choice of two floppy drives, one hard disk, 2Mb chip memory and about 400k RAM disk. This example is based on using the 1200 as the active machine and the 500 as the slave, which would normally make the most sense.

However, if the 500 is still running Workbench 1.2 or 1.3, it is easy to reverse the setup and put the 500 in control if an older program refuses to cooperate with the version 3.0 operating system of the 1200.

Mounting RAD: on the remote machine, instead of the normal RAM disk, makes it possible to reboot either or both computers without losing the contents of the solid state disk. The newest versions of ParNet allow rebooting either machine without affecting the functionality of the other.

While access times to the remote devices are not as short as when addressing the native drives, they are still quite acceptable. For example, when initiating ADPro from an A3000's own hard drive, it took less than 3.5 seconds for the interface to appear on screen. This compares with almost 14 seconds when the same program was run from an A1200's slower hard disk via ParNet. This was still

a second faster than the performance of the A3000's built in floppy drive. Access to shorter executable files and projects on the remote hard drive was nearly instantaneous though.

PC-Task users will be pleased to find that it is possible to address a hard drive file on the slave computer and even run programs from it, although some of the larger MS-DOS applications have a tendency to hang during loading, probably because of the low transfer speed. Even a few Amiga programs complain at times when accessing the other machine, but simply clicking Retry or Cancel fixes the problem. As far as the remote computer's floppy disk drives are concerned, PC-Task insists on sticking to the native machine's devices.

Printer Problems

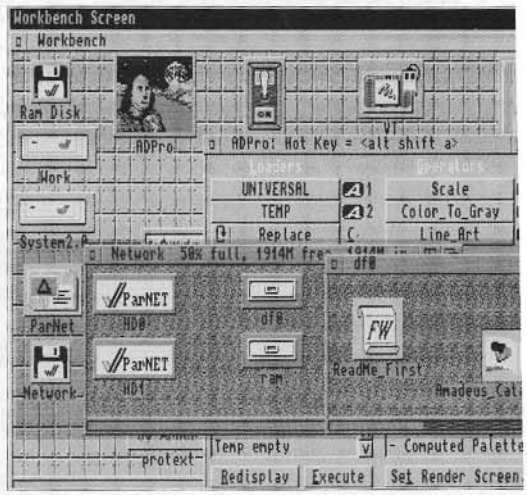
On the subject of flaws and limitations, ParNet's most critical shortcoming is its blocking of the parallel port for the printer device. Even if you use a data switch to select between a printer or the special ParNet cable (see Pic) while the machines are running, you can't quit the network link once it is up and running. Only a reset will let you use your printer after running ParNet.

Apart from this unfortunate restriction, I was surprised by how stable ParNet is during everyday use. If a program crashed one of the machines, a simple reset and double clicking on the ParNet icon restored the network without affecting any applications running on the other machine. You have to take care during during data transfers, though. Despite its multitasking capability, ParNet seems to dislike a simultaneous, rapid moving around of windows on the Workbench or flicking quickly through several screens. The result is sometimes a frozen computer and a data-losing reboot.

Conclusion

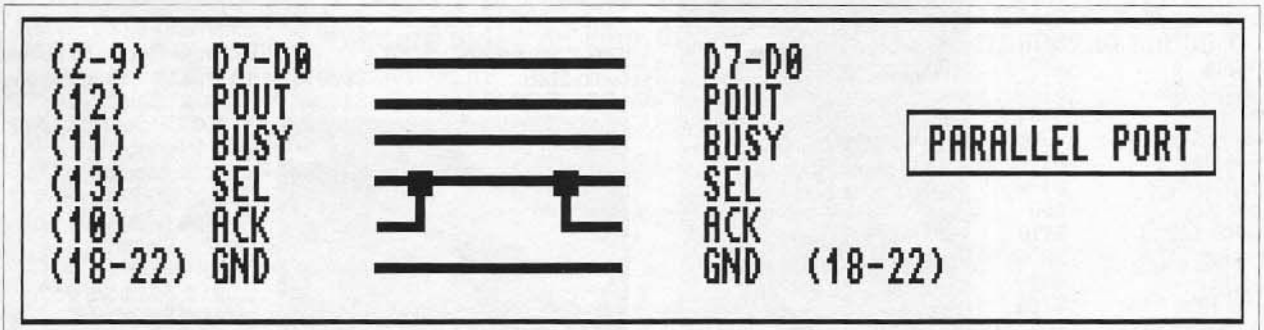
Despite a few flaws, budget networking can make life that little bit easier for the average Amiga owner. It certainly warrants keeping an old machine when upgrading to a new model.

Being able to freely access remote devices like the directories on the controlling computer, either on the Workbench or from within applications, including file managers, is both fun and productive. Even a novice will have few difficulties getting used to the fact that the other machine becomes drive NET: and its devices appear as directories on this new drive (eg. NET:Df0/Projects/MyFile).



As mentioned, there are a number of PD and shareware network solutions for the Amiga which cover a wide range of speeds and options. Taking everything into account, and excluding much more expensive commercial offerings, ParNet appears to be the superior system for the home user as long as printing isn't important. To obtain the latest version of ParNet, or any other networking program, simply contact a PD library - see the advertisements in this magazine. If you don't feel up to making your own cable, try Amadeus Computers on (02) 652 2712 where you can buy the complete ParNet package for $59.

❑



While most serial networking programs can make use of a widely available null modem cable, ParNet depends on its own custom wiring.

Potential users without any relevant experience may be better advised to pay a little more and buy a ready made cable.

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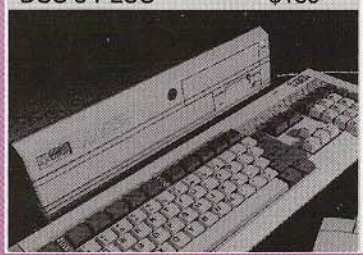

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HOT PD

By
Daniel Rutter

It's finally Fish time again. Fred Fish has decided to make the ending of his floppy disk PD and shareware distributions neater by releasing the last 50 disks in two instalments of 25, instead of his usual bursts of 20. This, along with Fred's extra workload getting the CD-ROM deal happening, explains the extra delay. In any case, I've got Fish disks to 975, and they're a good batch. Without further ado, the highlights!

Program Complexity

*** Ditch digger**
**** Office worker**
***** Brain surgeon**
****** Computer journalist**

Disk 951
IconMiser **

This intercepts attempts by programs to create icons, and substitutes images or icons you prefer in their place. It doesn't stop programs making icons at all, though. It's got a dead simple interface and works with Workbench 1.2 or above.

Disk 952
MachV **

Mach, by Brian Moats, is one of the golden oldies of the Amiga everything-utility world; the first version came out way back on disk 130! It's grown a bit since; Release 5.0, version 37.5 lets you record keystrokes and mouse events, manipulate screens and windows, pop up a shell, view the clipboard, blank the screen and much more. This release has a complete ARexx interface, so you can execute ARexx programs and functions from hotkeys and store results in environment variables. The optional title bar clock is an AppWindow - you can drop an icon in the clock and its name is set in a variable for use in macros. The documentation has been rewritten and includes two indices.

This unregistered version pops up an annoying timed "welcome" window and can only record 25 macros, but otherwise is fully functional.

UUArc ***

I last mentioned UUEncoding five months ago; it's how you turn a binary file like a program into text characters, for sending it to somebody on an electronic mail network. UUArc is a UU archiver and extractor, but it takes standard basic archiver arguments (-l, -t, -a, -x, -d) instead of doing the usual command source destination thing.

What use is this? Well, it lets you do UUEncoding direct from GUIArc, a nice little Intuition front end for various archivers that was most recently distributed on Fish 933. Personally I think anyone who can't drive an archiver from the Shell should leave such work to the real men, but if you're a big wussy girl's blouse yet still need to do UUEncoding this could be for you.

Disk 953
AmigaToNTSC **

AmigaToNTSC patches graphics.library so it will think you have an NTSC Amiga, so everything will open NTSC screens that have fewer lines but a higher refresh rate - less resolution, but also less flicker. AmigaToPAL patches you back to the standard PAL mode. It works on WOrkbench 2 and 3 machines, and handles all DoublePAL and DoubleNTSC modes.

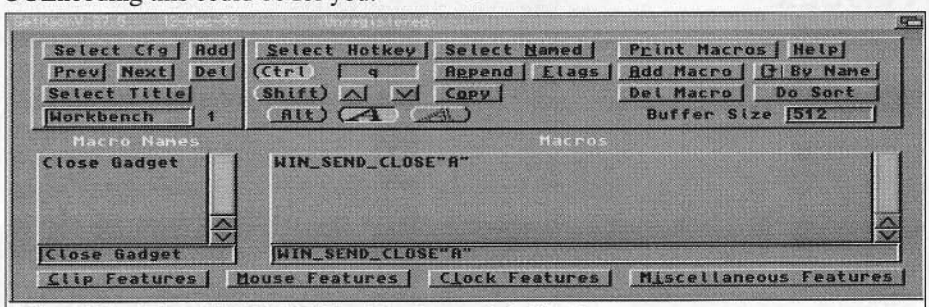
AppCon **

This clever little program turns your Shell window into an AppWindow, and lets you drop your icons in this window. Then, the name and path of the icon are inserted into the current command line exactly as if you typed them with your keyboard, but slightly faster!

On the down side, AppCon's not exactly bulletproof. It hangs if you use it with CShell, and I managed to turn it into a cabbage in ordinary use. But check it out by all means; see if it works for you.

ByteFilter ***

This freeware program is a simple file filter, which lets you you screen out specified bytes from any file, so you are able to extract the text from a binary file, for example. You can't replace the filtered bytes with anything, though. You'll know if you need it.



MachV - The Multi-Utility that wouldn't die.

Disk 954

MFT ***

Multi-Function Tool is a weeny assembly program (just over 1k) that can perform the functions of the Rename, Delete, Makedir, Wait and Filenote commands. It's useful for disks where every byte counts and you don't want a bunch of bigger utilities taking

up room. The only caveat is that you can't use pattern matching with it. Whaddaya want for 1k?

Disk 955

Deluxe Galaga *

In the great tradition of taking ancient arcade games and putting knobs on, here's . Written by the same guy that did the excellent Deluxe Pacman, it takes the basic alien formation idea and adds plenty of cool power ups, tougher aliens including extra-meaty Bosses, shops and secret bits. An example - remember the bad guys who stole your ship, giving it back if you shot them so you had double fire? Well now you can use the same tractor beam generator to grab enemies when they come past your face! Check it out - if you like the classics you won't be disappointed. (pic on next page.)

MuroloUtil ***

This is a collection of CLI utilities by Felice Murolo. Button is a little utility that opens a requester with custom text. C64Saver reads and decodes C64 basic programs and saves them in a readable file. Calendar prints a monthly calendar and some information about the days. CarLost causes DTR to drop on the serial port. CDPlayer lets you play a music CD on CDTV or A570. FMBadFmt is an Intuition based utility which formats bad disks and makes them usable (with less capacity), not unlike the old BFormat utility. KickMaker is a utility for A3000 users that lets you create a new KickStart disk. SerTest opens a window and shows the status of serial port signals (is your modem really connected?). Switch opens a little centered window with custom text and two buttons for choice. Most of the programs require Workbench 2.

PFS ***

Professional Filing System is another new filesystem, offering improvements over Commodore's OldFileSystem and two flavours of FastFileSystem, at the cost of being fairly incompatible. Like DiskSpareDevice, which I mentioned just last month, PFS can be set up on any floppy drive, and piggybacks the existing DFx: device with a new PFx: device, just like CrossDOS piggybacks PCx:. Stick in a disk and format it and you're away.

Unlike DIskSPareDevice, PFS is closely enough related to OFS and FFS that you can quick-format an OFS or FFS disk into PFS. By doing more thinking and less grinding, PFS disks store about 10% more data (it works with both double and high density disks, if you're lucky enough to have a high density drive), and are less corruptible - it's harder to stuff up a PFS disk by, for example, popping it out during a write operation. I checked the speed of a PFS disk compare with a standard FFS floppy, and struck the Cache Effect - when DiskSpeed did its file manipulation tests, the PFS disk never even spun, waiting for all the shenanigans to die down before actually writing something.

Since the FFS disk dumbly tried to get everything done before moving on to the next bit, PFS won by a factor of about 70, which I must stress does not accurately reflect real time performance. In transfer speed, which does mean something in the real world, the PFS disk was almost twice as fast on writes and a shade slower on creates and reads.

If you like this sort of tinkering, PFS is brilliant fun. And it does keep your data a bit safer.

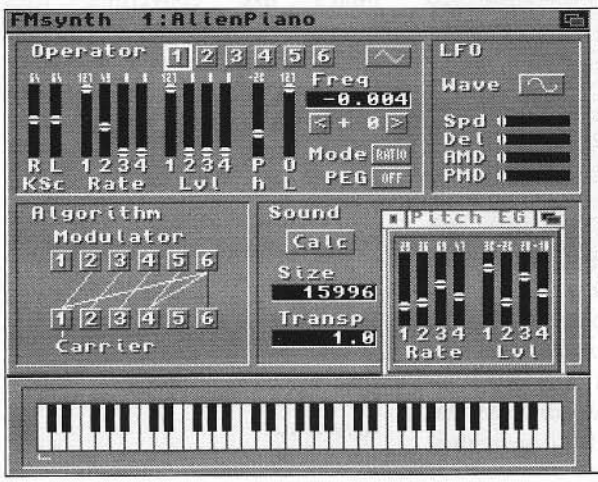
Disk 956

DDBase **

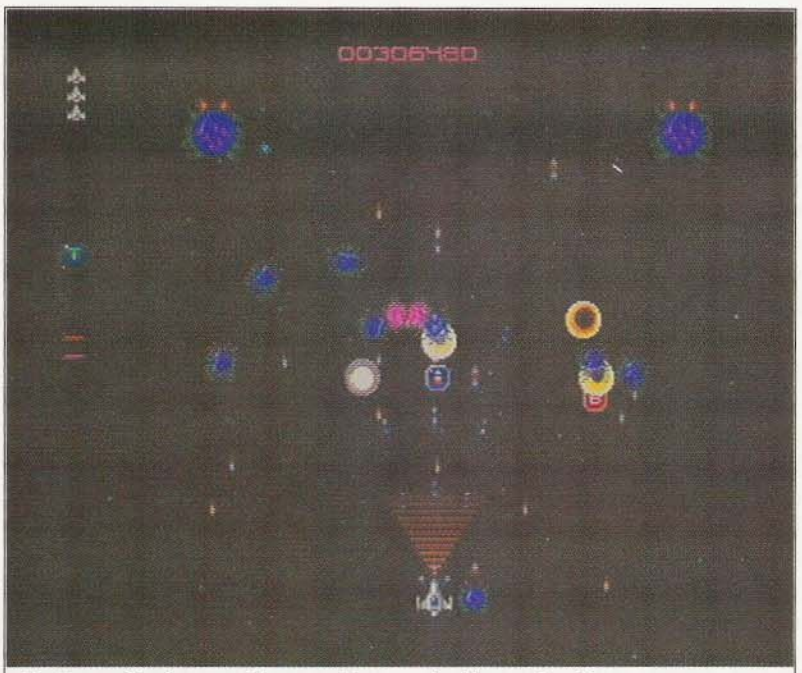
This is a simple freeware database. It can handle up to 1500 records, up to 20 fields per record, up to 10 user-defined gadgets, data importing and exporting in ASCII or Superbase format. It requires Workbench 2.

FMsynth **

This is a program to create sounds with FM synthesis. It has six operators, a real time LFO and a freely editable algorithm. The



FMsynth - it won't turn you into Ken Davis overnight, but if I were you I'd be grateful.



Deluxe Galaga - those danged aliens just never seem to learn, do they?

sound can be played on the Amiga keyboard (in mono or four part polyphony) or on a MIDI keyboard which is connected to the Amiga. The sounds can be saved in IFF-8SVX (one or five octave) or raw format. There's even an AREXX port now.

There are 230 FM sounds included, which vary from the dire to the surprisingly good. None of them are going to sound any better than a $300 toy keyboard, but this is a real synthesiser and lets you learn about the basics of FM synthesis, which is what's used by most budget synthesiser chips these days.

Disk 957
PARex ****

PARex is like a hyperthyroid version of ByteFilter, above. It allows you to process files, mostly text files, and replace strings of characters, strip text between two strings, or invert the case of strings. PARex supports normal text searching, wildcard searching, context remembering and word-only searching. Using scripts lets you use an unlimited number of such replace commands. Each replace command can be individually controlled.

All ASCII codes can be used in the search and replace strings, and you can even insert entire files, dates or times. Custom formatted hexadecimal output is also supported.

There are more than twenty ready to use scripts included to do things like converting files between different computer systems (the classic function for these sorts of programs), stripping comments from source files, finding strings in files, converting AmigaGuide files to normal text files - even automatic version updating of source files.

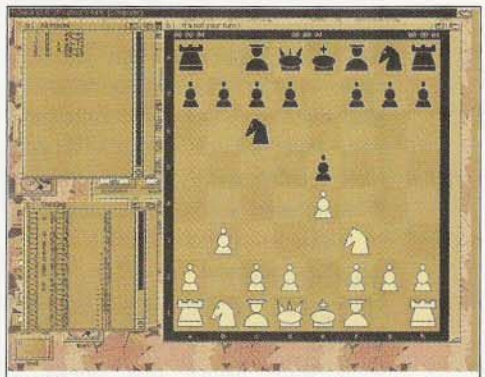
Easily accessible for the beginner? Nope. Very powerful? Yes. But not this version - the evaluation version only does the first 4096 bytes of any file. Awwwww.

VChess *

Fully functional shareware chess game completely written in Amiga Oberon (well, I suppose something had to be).

VChess features selectable screen type - it can run right on the workbench screen, and indeed is in my screenshot, since I have to get at least one picture of my Workbench into every issue of ACAR.

You can resize the board, watch the computer play itself, load and save games; load, save and print the movelist, set time limits, solve for mate (down with newspaper chess puzzles!), change the font, set up and rotate the board, show the computer's thinking and, of course, more. Requires Workbench 2, and should run even on low memory (512K) machines if the opening library is not used. I wasn't about to rip the lid off my 9Mb machine to test this. Sue me.



VChess - and my workbench!!!

Disk 958
Alert **

This small command displays any text you feed it in an alert box; red under Kickstart 1.x, yellow under 2 and above. This sounds fairly pointless, but it lets you send users of your scripts an unmissable message and also has considerable value for practical jokes. Not that I'm advocating you terrify

someone by making a fake failure with some really alarming text. Oh no. Not me.

Disk 959

AmigaDiary **

AmigaDiary is a handy workbench tool of the type that currently abounds on office PC's. It is a mouse driven diary that can store all personal events and is the perfect solution to all those forgotten events, missed appointments and so on. It also looks rather boring, so I didn't do a screenshot.

Disk 960

Imperial *

This is basically a Shanghai clone - pick matching Mahjong tiles from a heap.

There are interesting alternative layouts, you can make your own, and every game is solvable, unlike those in traditional Shanghai which can well be impossible.

PowerPlayer **

A very powerful, user friendly and system friendly module player. It can handle nearly all module formats, can read PowerPacked and XPK packed modules and comes along with its own powerful cruncher that uses the lh.library. The interface is easy to use, and there's an ARexx port too.

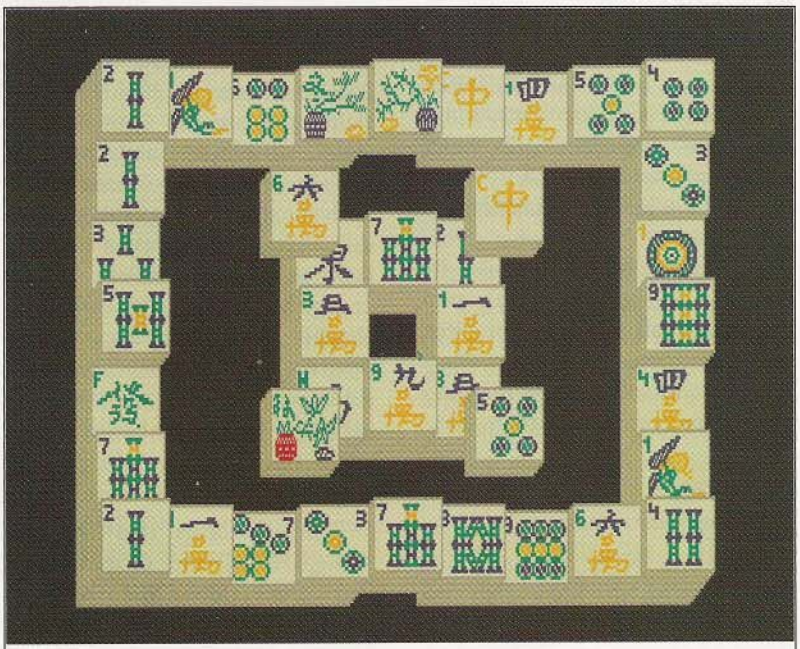
Disk 962

EnvTool **

EnvTool is another critter that intercepts projects' tooltypes and redirects the file to a different viewer, application or whatever. This version does it by looking at an environment variable that tells it what program to use, with a default setting if the variable isn't there.

ToolAlias **

Another approach to the same problem. This one reroutes specific programs to other programs, so you can set up lots of different tool aliases.



Imperial - Yet Another Shanghai Game.

Touch **

I mentioned this five months ago, and now it's been updated from 1.0 to 1.2. Touch changes the date and time stamp of all specified files to the current date and time, and also creates an empty file if the specified file does not exist. 1.2 is slightly bugfixed and optimised, and warns if it can't find a file to match a pattern (so you know if it's spawning 0 byte files all over the place). Tiny, but useful to some, like me.

Disk 963

BootPic **

BootPic shows nearly any IFF picture while your system is booting after a reset. It can also play a MED music module. Requires OS 2.0 or higher. This update, 3.1, makes the program work properly with WB2 and lets those of us with hard drives (there are one or two of us out there these days) use BootPic properly.

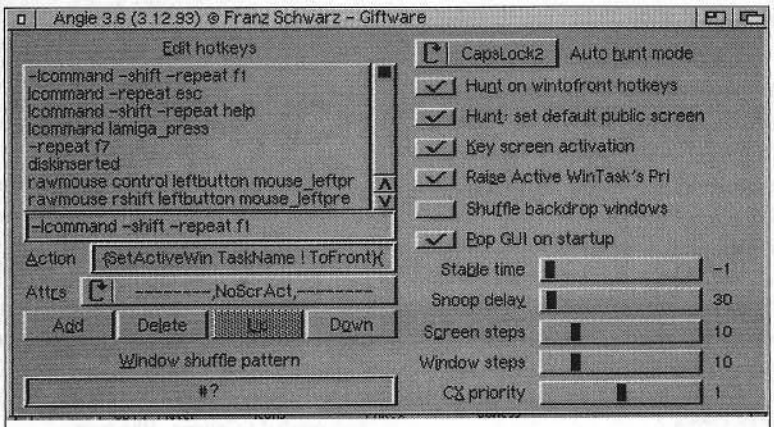
Split! ***

A high-speed file splitter, for transferring big files on floppies, or just backing them up. Split! splits a large file into several smaller files (you can define the size). It uses a 32k buffer, which in English makes it go like the clappers. You'll need to hit the CLI to use it though. Poor baby.

Disk 964

Angie ***

I mentioned this Rolling Stones-inspired commodity four months ago, and it's back. Angie (ANother Great Intuition Enhancer...) assigns macros that can consist of dozens of Intuition related actions, arbitrary DOS commands and input event data to an unlimited number of hotkeys. Furthermore, these macros can be executed via ARexx.



Angie - whaddaya know, another multi-utility

Angie's capabilities include auto window hunting, auto Active-WinTask priority boosting, last-active window remembering, auto DefPubScreen definition, and, as is traditional, lots more.

Disk 965
UChess **

More powerful than VChess, so enormous that many Amigas can't even run it - yes, it's another version of UChess! It plays a very strong game, and you'd want it to since you need WB2 and at least 4Mb of RAM to run it, with a special version included for all those 040 owners with 10Mb spare. Uchess supports AGA, and has a pile of features. Load, save, edit board, autoplay, swap sides, force move, undo, time limits, hints, show thinking, and a supervisor mode that will allow two humans to play with the computer keeping them in line.

If you want the source code for UChess - which you don't need to use it - it's on Fish 966.

Disk 968
DiskInfo ***

This replaces the AmigaDOS 'Info' command, but can additionally give more extensive information on the disk (volume) and/or on the device in which the disk is inserted. DiskInfo can tell you the device driver, cylinder range, number of cylinders, number of surfaces, blocks per track, block size, DOS reserved blocks, maxtransfer, number and memory type of buffers, interleave, boot priority and boot-blocks, which should be enough for anyone.

For some unfathomable reason, this exact same program is also on Fish 971. Ah well; with 4465 individual entries in the library, I suppose Fred's allowed to slip up once.

Disk 969
DOSTrace ****

This is a SnoopDOS clone commodity (yes kids, WB2) with a lot more whistles and bells, including session history and tracing of a lot more functions. If you need to see what your filesystem's doing, in order to diagnose those wonderful programs that fail without telling you what they couldn't find or where they were looking, this is for you - and it can do quite a lot more, too.

Disk 970
NoNTSC **

Converts NTSC screens into PAL screens. It links into the OpenScreen routine and looks at the height of every screen opened. If it's 200 pixels, it is converted to 256 pixels. Simple and effective - though it won't help if a program's hard-coded to only use 200 pixels and never puts anything in the rest of the screen...

UUCode ***

More UUencoding/decoding stuff. This set's designed to be reliable and fast, and includes 68030 versions. Again, you know if you need it.

Disk 972
Icons & MoreIcons **

A load of four and eight colour icons. All the same size, all clear and easy to understand. Check 'em out in the screenshot, which also contains, that's right, glimpses of my Workbench. Twice in one issue. What a champ.

QuickFile **

QuickFile is a flexible, easy to use shareware flat file database. Files can be larger than available RAM, but as much of the file as possible is kept in RAM for fast access. Features include: multiple indexes that are automatically maintained; character, date, integer and floating point data types; up to 250 characters per field and 250 fields per record; form and list style displays and reports; unlimited number of views for each file; fast sorting with multiple sort keys; improved search function; fields can be added, changed, or deleted at any time; flexible ascii export/import; flexible multi-column label printing. Runs on WB1.3 or later and should be OK with 512K RAM.

RCON ***

This replaces the standard AmigaDOS 2 or 3 CON handler, and gives all CON windows (shells, in other words) many new features including scrolling back text which has disappeared,

enhanced copy & paste support, window iconification, output logging, window contents printing and more. This is a demo version, which only runs for 30 minutes. CHeck it out.

Disk 974

DDLI **

The Duniho and Duniho Life Pattern Indicator (DDLI) is a program that asks you questions in order to determine your Life Pattern, which sounds a bit New Age but is actually founded in quite valid psychological reasoning. Whether it's good for anything or measures anything useful is another question, of course.

The Life Patterns correspond to the sixteen psychological types measured by the Myers-Briggs Type Indicator (MBTI), and they are represented by the same abbreviations. By using knowledge that Terence Duniho has added to the study of Type, this program also checks itself by asking supplementary questions about other preferences that correlate with a person's type.

Incidentally, when Andrew Farrell did the test it said he was one sort of personality, but its self-checking questions said something quite different. It did this when I tried the test as well, and then it crashed. I'm not sure if this is a good sign.

KingCON ***

Another replacement console handler, which I last mentioned a couple of months ago. It is 100% compatible with the standard handlers, but adds some VERY useful features, such as filename completion (TAB-expansion), a review buffer, Intuition menus, jump-scrolling for FAST output, cursor positioning using the mouse and (wait for it, wait for it...) more. It requires WB2.

This version, 1.1, kills a collection of bugs form 1.0, deals with weird keymaps, adds some more editing functions, does quote marks in filename completion, automatically handles icon dropping to insert filenames (just like AppCon, above) and iconifies windows. Among other things.

Pretty cool, and completely uncrippled.

Disk 975

CLIExchange **

I mentioned CXKiller three months ago; it lets you quit commodities from the shell. This 592 byte program does the job of the whole Commodity Exchange.

The only difference is that Exchange has a graphical user interface, while CLIExchange has been designed to be called from CLI so it can be used within scripts, menus, docks or hotkeys. You need at least WB2 (or you're not using commodities anyway).

ITF ***

Amiga version of ITF4.01. ITF stands for "Infocom Task Force", a system for playing the INfocom text adventure games, which are built in a standard format that can theoretically be played on any computer.

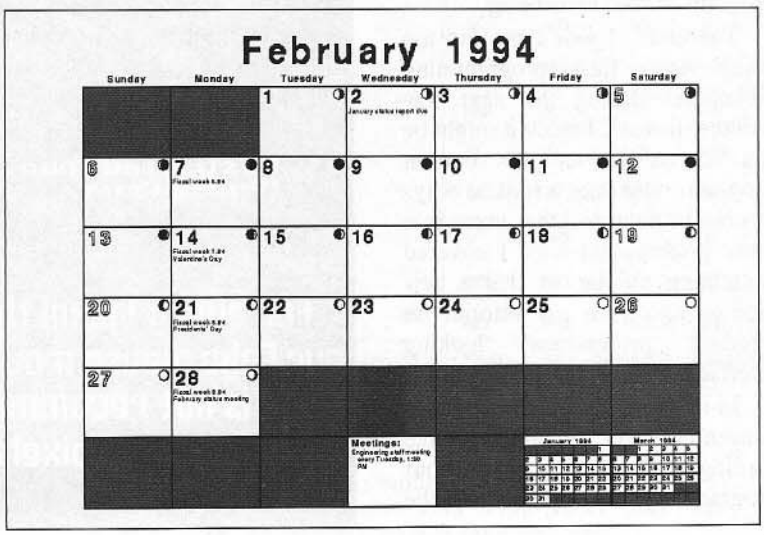
There have been several ports of Infocom interpreters to the Amiga, but none of this program. The interpreter supports v1, v2, v3 (Zork1 to Stationfall), v4 (Trinity, Bureaucracy...) and v5 (Sherlock, Beyond Zork...) games. This is more than any other freely distributable interpreter. With this interpreter you can play ALL the games in the LTOI2 package for the IBM PC, by copying the datafiles with CrossDOS or similar, then just running this interpreter. Requires WB2.

PCal ***

This creates a very nice looking Postscript calendar. By default, PCal simply prints an empty calendar. Its real power is in its ability to place events in appropriate days on the calendar, thus allowing you to create personalised calendars. This is achieved through the use of a "calendar.dat" file that has extraordinary flexibility. Check out the picture for a taste!

Next month there'll be another companion disk set - I've got 34Mb of stuff in my downloads directory so it should be a good one! See you all then!

❑



AMOS

By Wayne Johnson

After my short break, I'm back into the swing of things and will be appearing here on a regular basis again. What have I been working on during this time?

Well, a few things; one of which, NT Reference, is a New Testament keyword reference program like many of the commercial offerings, but it's free. You can download it from Midnight Caller BBS or Amiga File Server, otherwise, you can get it from any decent PD library for no more than $6.

I think by now, most people who want to be are fairly advanced at programming the Amiga. Ever since CANDO appeared, people without C or Assembler skills have had a fair crack at programming, and since the arrival of the more powerful BASICs like AMOS, BLITZ and F-BASIC, things have become like the good old C64 days where everyone could program at least something.

Therefore, I won't go into too many super flash programming techniques during the next few months. Instead, I think it might be fun to check out our current programs, and take a look at ways to present them to other users in a more professional way. I covered something similar to this a few months ago with my tutorial on building professional looking interfaces for programs.

In the same flavour, I'd like to concentrate on techniques like loading styles (the way your program or game multiloads in the best way), disguising your programs so they don't appear to be written in BASIC, recommended keyboard input and other useful things that will make people sit up and actually use your program. How often have you downloaded a utility only to find it slow, clumsy and ugly? If its functions are essential you may keep it, but otherwise it goes straight in the Workbench trashcan (does anyone really use that anymore? [Nobody ever did - DR]).

More than a Mouse

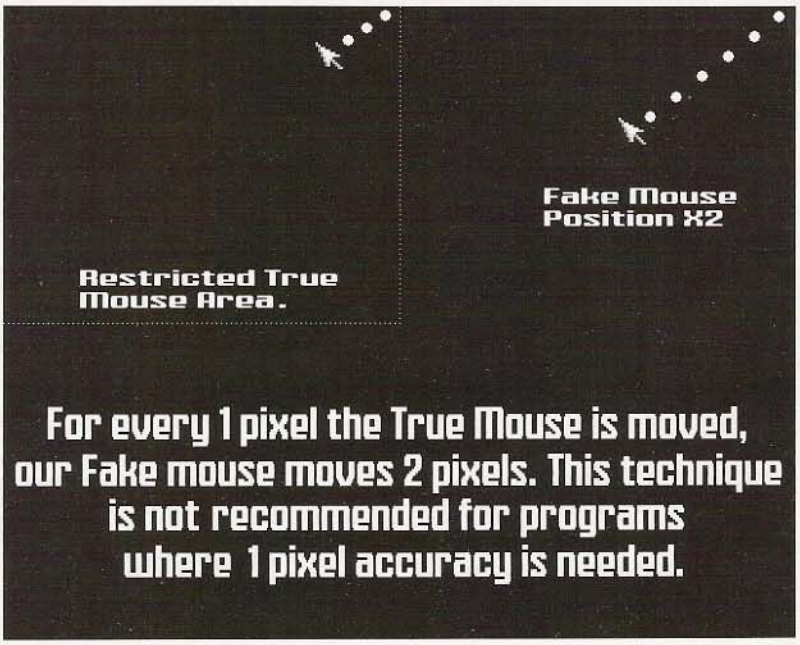
Have you ever noticed how AMOS programs have a mouse speed equivalent to speed 2 on the Workbench? Now, Intuition's mouse can not, unfortunately, be changed to affect the one in AMOS. They are on completely different systems and are a world apart. This is a bad feature of how AMOS currently works, and apparently, this may change.

Wouldn't it be good to be able to change the mouse speed for your own programs? It can be done, but it's only a trick. It can be useful, but the technique would best be for games requiring a pointer or demos and music disks. The reason? For every true mouse movement of 1 unit, we have another fake pointer that must move 2 units. Type in the code, save it, run it, and see what I mean:

```
'MouseAccel, Sausage 16/6/94
'
Screen Open 0,320,256,32,Lowres
Limit Mouse 128,42 To 278,162 : Rem adjust 3rd figure for right hand clipping
Cls 0
A$="A: Let X=XS(0,XM*4); Let Y=YS(0,YM*4); Pause; Jump A;"

'Change above to multiples of 2 for speed.

Channel 0 To Sprite 1
Amal 0,A$
Amal On 0
Sprite 1,1,1,1 : Hide
Do
If Mouse Key=1 : Edit : End If
Let X=X Sprite(1)
Let Y=Y Sprite(1)
Loop
```



Nice and short, eh? What's better, it runs under interrupt so you have a nice new fast mouse. Also, if you read the sprite coordinates as in the DO/LOOP above, you can easily track where your new pointer is and read X & Y rather than X Screen(X Mouse) and so on. So how does the routine work? The illustration should explain it fairly easily.

News

Current new extensions are:

CRAFT - fairly average type extension. Not terribly over the moon on this one yet.

MUSIC V2.6 - Getting better and better.

LIME - Not yet released. This one already contains some Intuition support and may contain AGA. Full report on all three plus more next issue.

There is still no official AGA or Intuition type extension available. Two are rumoured for both, one from the USA and one from Germany. Europress have dumped all plans for theirs.

The new "Click & Play" for the IBM PC does not look to be an AMOS clone any longer. This product will be a creation product with little or no programming required, similar to CANDO or the new Layout for the IBM PC. It will allow you to create games for the Microsoft Windows environment. After its release possibly later this year, we will see support from Europress again.

Next Month

More techniques and news. Remember, I can be contacted on Amiga File Server for help, suggestions or questions. Also, if there's anything you want to see here, your requests are being taken.

❑

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CanDo

By Greg Abernethy

As good as the CanDo document is, there is still the problem of text disappearing to the right of the document as the user types in, which lacks the professional touch of some text editors and word processors.

Worry no more, as this month I will be showing you how to be able to get all your documents to have a word wrap feature that works correctly every time - I think!

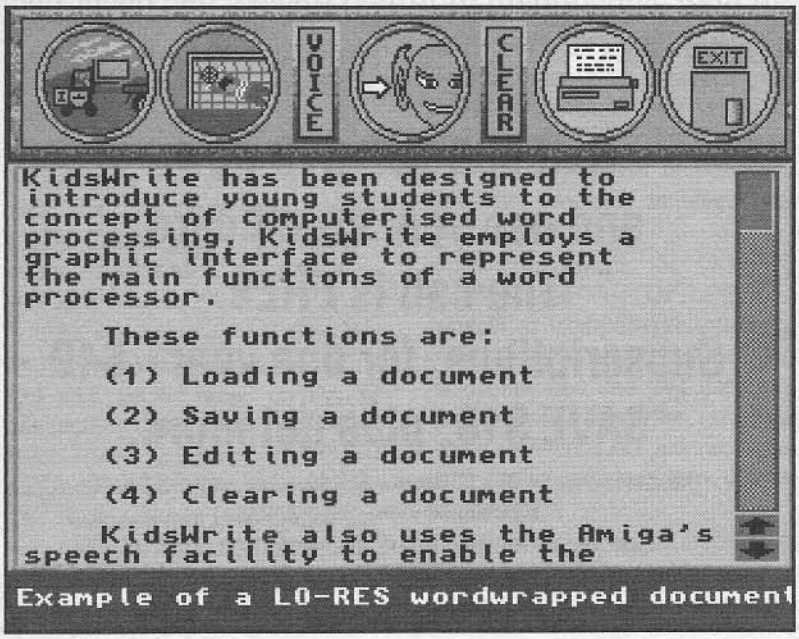
There is not a lot of code and it can easily be installed for use in any document, regardless of width. All that is necessary is to set a variable to tell the routine the maximum character width for a line. e.g. 78 characters.

The routine will handle all the word wrapping for you. There are two routines altogether.

THE WORD WRAP ROUTINE

```
Let LineLength = 78 ; insert this at the start
of your program to set the width of document

WorkWithDocument <"Your Document Name">
If LengthOfLine > LineLength and
TheColumnNumber > LineLength
 Do "MoveIt"
ElseIf LengthOfLine>LineLength and
TheColumnNumber<LineLength + 1    Let c =
TheColumnNumber
Let l = TheLineNumber
MoveCursorTo STARTOF LINE
 MoveCursor RIGHT ,LineLength - 1
 Do "MoveIt"
 Loop
  Let z = TheLineNumber
  If z < LinesInDocument
   PositionOnLine z + 1
   Let t = TrimString(TheLine)
   If t <> "" and t <> " " and t <> nothing
and TheLineNumber < LinesInDocument
    MoveCursorTo STARTOF LINE
    Type " "
```



Example of a LO-RES wordwrapped document

How it works

This routine is called every 10 jiffies (1/6th second on PAL machines) by a timer that will be created below.

It checks the current location of the cursor, and if it exceeds the specified line length, the line is word wrapped by moving back to the end of the last word and using the SPLITLINE command to move the rest of the line to the start of the next line.

The lines below this line are then moved up and wrapped correctly. Although this routine may seem complex, it works very

```
    MoveCursorTo STARTOF LINE
    Delete CHARACTER ,-1
    MoveCursor LEFT
    If TheCharacter = " "
     Delete CHARACTER
    EndIf
    If LengthOfLine > LineLength
     MoveCursorTo STARTOF LINE
     MoveCursor RIGHT ,LineLength - 1
     Do "MoveIt"
    Else
     ExitLoop
    EndIf
   Else
    ExitLoop
   EndIf
  Else
   ExitLoop
  EndIf
 EndLoop
 PositionOnLine 1
 MoveCursorTo STARTOF LINE
 MoveCursor RIGHT ,c - 1
EndIf
```

quickly and does a good job of continually formatting any text document correctly.

THE MOVEIT ROUTINE

MoveCursorTo ENDOF PREVIOUSWORD
MoveCursor RIGHT
SplitLine
If TheCharacter = " "
Delete CHARACTER
EndIf
MoveCursorTo ENDOF LINE

Explanation

This routine simply carries out the word wrap on the current line. Note that the SPLITLINE command is used to make sure the text is moved correctly. Don't use the NEWLINE command, as this does not wrap a line correctly.

THE TIMER OBJECT

OBJECT NAME - "WordWrap"
INTERVAL RECURRING - set JIFFIES to 10

Script
Do "WordWrap"

That is all there is to it. Now you can add that professional touch to all your CanDo documents by having them wordwrap correctly.

The code has been tested using lo-res, medium-res and high-res documents. See you next month.

❑

You've read the column - now get the book.

All the CanDo tutorials in one book. NOW available Call RUSH Software on 042 342107 to order.

User report

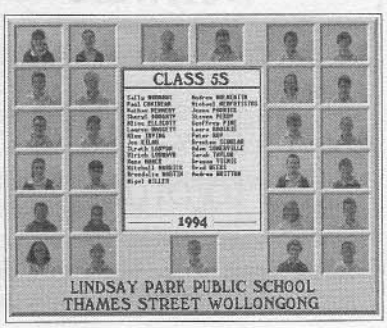
Multimedia in education

By Greg Abernethy

Recently, I was fortunate enough to be able to work with a local school in creating a multimedia application. Ron Shipp, the computer coordinator at Lindsay Park Public School in Wollongong, asked for assistance in demonstrating how the Amiga could be used to create a multimedia database.

The school is located in a quiet area of Wollongong and has been using Amigas in the classroom for about four years. There is a mixture of Amiga 500s, 600s and 1200s in the school. Ron is currently in the process of selling the older machines to upgrade to the Amiga 1200 as he has found it to be excellent for school use.

I had the pleasure to work with Ron's class, 5S, when creating the project, and would like to thank them for their behaviour, attitude and assistance. It was very pleasing to see the students showing such an interest and they all seemed to learn a great deal from the exercise. I would also like to thank the school, and Ron Shipp in particular, for the assistance my wife and I were given while working on the project.



Multimedia, as I understand it at the moment, is the use of speech, video, animation, music and sound effects among others, to create an application. Examples are Groliers Multimedia Encyclopaedia and Animals of San Diego Zoo, two excellent titles on CD-ROM for the PC.

Ron and I discussed the best ways that the Amiga could be used in this area, and decided to create a class database that used digitised speech and grabbed video images as well as a simple animation to demonstrate a multimedia application to the class. Music and sound effects would also be added at a later date where necessary.

As I have had extensive experience in using CanDo for software development, I selected it as the system for the database. CanDo 2.51 is great for displaying high resolution grabbed images and playing sound files and music, as well as having a very good database creation system.

Building the software

I created a single database entry page, (see illustration), and added buttons to enable the user to hear a sample of speech from the student currently displayed in the database, and to view a picture of the student. The user could cycle through the database using the NEXT or PREVIOUS buttons or select a student from a scrolling pop-up list.

It took about an hour to draw the page in 256 colours using Deluxe Paint AGA. I created a simple colour cycling ball to demonstrate simple animation. It only required a couple of hours to program the database, as I already had all the database scripts set aside from earlier applications. All was in readiness for adding the speech and digitised images.

I arranged with Ron to do two half day sessions. On the first day we would get the students to enter their details in the database, and then have their speech digitised. On the second day we would use the school video camera to digitise an image of each student. As this was my first attempt at this type of project, I was unsure how long it would take to carry out these operations.

I decided to use Digital Sound Studio 8+ to digitise the speech samples, and VidiAmiga 12 to grab the images of each student. I have an Amiga 1200 with 6Mb of RAM and thought that this should be adequate.

Digitising the kids

My wife Kay and I arrived at the school on the first morning and I must admit I was a bit tense, as I had persistent visions of my computer or the equipment failing badly. I had seen it happen in the past to other people, and hoped my nightmares would not come true. Ron had his class, 5S, primed and ready to go when I got there. It only took a few minutes to set up and we began work. Kay helped the students to enter the database details while I sampled the speech

of each student. I found it necessary to move the microphone about three metres from the Amiga as I was getting feedback from either the monitor or computer.

Amazingly, it only took a little over an hour to get all the database information and obtain all the speech samples. The students knew what they wanted to say and had all the details for the database ready. The Digital Sound Studio package was very easy to use and it took very little time to get a sample. The quality of the samples was quite good, and they played back well from within the database.

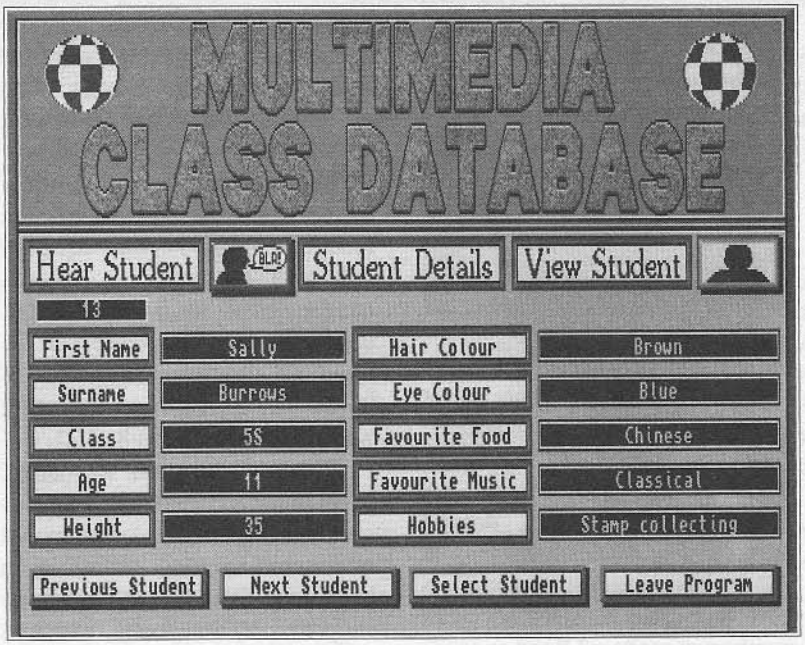
That evening, I checked the database for typing and spelling errors and tidied up the speech samples.

The next morning when we arrived at school Ron had all the equipment ready for use. We decided it would be best to have a whiteboard as a backdrop, to give the best contrast when grabbing the video image.

It was very easy to grab an image using VidiAmiga 12RT, as it grabs an image from the video source in about 1/25th of a second, which was good as some of the students had trouble keeping a straight face. Once again, I was amazed at the ease of use of the software and that we were able to digitise all the images in just over an hour. The images were displayed as 640x512 HAM and the quality was very good.

I then showed the database to the students and they suggested that it would be better if the speech sample could be played when the digitised image of the student was displayed. I agreed and was able to make the changes to the program while the students watched, which also gave them an insight into software development.

Because I had so much time still available I created a simple



rolling the eyes animation using a digitised image of one of the students. The students thought this was great and were interested in doing another day creating animations using Deluxe Paint.

That night I added the finishing touches to the database, created a title page and added a print option for the digitised image. I will be presenting the full program to the school this week.

The Amiga and the software and hardware I used performed well and I could not fault the quality of any of the speech or images used in the program.

Equipment list

The equipment I used for creating the application and its cost are listed below.

- Amiga 1200 with 6meg RAM/40 meg HD, 1940 monitor - $1900
- Digital Sound Studio 8+ - $199 - microphone required, available from Amadeus Computers (02)6522712
- VidiAmiga 12 Real Time Digitiser - $449, available from Computa-Magic (03)3260133
- I used CanDo v2.51 for creating the database. It is very good for creating multimedia applications. - available from Desktop Utilities (06)2396619

« I used Deluxe Paint IV AGA for designing the title and database pages as well as shrinking a full-screen image to quarter size for display in the title page. It is the best paint program I have seen on any platform.

As you can see from the costings above, a multimedia creation system can be obtained for a relatively low cost (under $3000).

I examined the DOS and Macintosh alternatives and it seems that a much larger outlay is required to duplicate what I achieved on the Amiga. The Amiga may lack finesse in certain areas but is ideally suited for this type of application.

If you would like more information on this project or have any questions, I can be contacted at Rush Software on (042) 342107 or at home on (042) 617442.

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AREXX

By Scott English

Have you ever needed to used a random function in your Arexx scripts or even your DOS scripts? Have you noticed that the Arexx function as shown in the SystemSoftware manual, doesn't produce very random numbers at all? Or have you just been curious how it is that a machine picks numbers at random? Read on.

Random Ami?

The answer is no, not really. I believe the problem lies in the theory that it requires intelligence to understand the concept of the random. Now your Amiga possesses very little in the way of intelligence. It is unable to take a range of numbers and 'pick one of them without looking'. It cannot even go along the lines of assigning each number within the range an equal chance of being picked - that itself involves the random again!

So we have a bit of a dilemma. You should realise that the Amiga is capable or at least gives the impression that it is capable of carrying out random functions. Simply look at any card game, or dice game. The same numbers don't come up all the time. So there must be a way right? Well, yes and no.

Arexx has two 'Random' number generating functions. Random() and RandU(). RandU() generates a number from between 0 and 1. While this may not seem to be particularly useful, by multiplying the result of the function by a number of your choice, you can get a huge range of values for your 'random' numbers.

For example, consider multiplying the result of the function by 10,000. This equation will give an apparently random number between 0 and 10,000, depending on what came out of the RandU() function. Say we got 0.217. The equation we are using would give us and result of 2170.

The other function, Random(), generates a random number between specified maximum and minimum values. There is a hardcoded limited on the range supported by Random(), which is 0 and 999. If you need numbers larger in range then I suggest you use RandU(). This function however should be apt for MOST uses. We have discovered the useage of both functions, lets have a look at how they actually work with some sample Arexx scripts. For the examples, we'll be attempting to simulate the roll of a die using Random().

```
side = random(1,6)
say 'The dice rolls a' side
```

Dice is our first attempt at simulating the roll of a die, or more to the point, the results of rolling a die. The minimum value for the Random() function is 1, the maximum is 6. The program should pick a number between those limits and then print out the results.

Executing the script gives us a message along these lines:

The dice rolls a three.

Ok, that worked pretty good, but what if we execute the script again?

The dice rolls a three.

In fact, no matter how much you run that program, the result is going to be 3. Not much fun, and not very random is it?

The reason that the number is not changing with each execution is because the 'seed' doesn't change from one execution to another.

Each time the script is executed, the same seed is used to intialize the state of the internal random number generator, and because the same seed is used, the generator is initialized into the same state each time.

It is possible to include a seed as part of the Random() function's parameters.

In the Random() function, the seed goes after the maximum number, so repeating the above script with a seed of our own included, we would get:

```
/* Seeded Dice */
Side = Random(1,6,13)
Say 'The dice rolls a 'Side
```

In this case, *I* picked a random number for the seeder, 13. Executing the script again this time we get the following results:

The dice rolls a four.

Good so far, lets try it again:

The dice rolls a four.

The only thing that we have achieved here is that we have changed the seed from the default seed to one that we chose. So the initial change in the results achieved from the script is different (obviously) because the random number generator is being initialized into a different state. But when we execute the script again, it is again being initialized into that same state, just as it was before with the default seed.

What we need is a method of making the seed change every time the function is called!

Another function in Arexx

comes to the rescue, Time(). Time() can be used to return the time as set by the Amiga's internal clock (if it has one). The function has several options available to it but the one that we are interested in at the moment is the one that returns the number of seconds that have elapsed since midnight, Time(seconds).

Hopefully, you will have an idea of what I am aiming to do. For those who haven't yet clicked onto my plan, the value returned by Time(seconds) changes every second, because as every second passes, quite literally, the number of seconds that has elapsed since midnight increases by one.

We can then insert this value into the Random() function as the seed, and yehaw, we have a seed that is changing frequently!

Looking back at the Dice program, we'll add the new improvement and see if it works:

```
/* Timed Dice */
seeder = Time(seconds)
side = Random(1,6,seeder)
Say 'The dice rolls a' side
```

Executing the script we get a 5. Executing it again this time we get a 3. Trying one more time, we get a 2. Looks like we have done it folks.

We've now just worked out how to generate what are commonly called pseudo-random numbers, which are about as close as your Amiga can come to purely random numbers at the moment.

You will probably find that most programs that appear to generate random numbers have a similar sort of approach at the core of their code, it is a convenient way to get around a very inconvenient problem.

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Coming up Next . . .

Next month in the new Amiga Review Compuserve column, we will review Autopilot in detail and begin to explore some the fascinating features available on CompuServe.

Finally, if any users have any interesting stories about the way they use CompuServe, mail me on 100036,174.

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Amiga Forums

There a 4 forums on CompuServe which deal specifically with the AMIGA.

AMIGA ARTS FORUM [GO AMIGAARTS] If you are interested in Drawing, Animation, Rendering, Desktop Video or Music this forum is for you.

AMIGA TECH FORUM [GO AMIGATECH]

This is the programmer's forum, If you are interested in writing programs for the AMIGA or in finding out about the all latest hot gossip on new AMIGAS you should check this one out. Also a good place to find useful source code and technical advice.

AMIGA VENDOR FORUMS [GO AMIGAVEND]

Many of the big names in AMIGA software and hardware can be contacted directly through this forum including ASGD - Art Dept Professional, IMPLUSE - Imagine, SOFTWOOD - Final Writer and GVP. Music and MIDI users should also check out the Midi Vendors forum [GO MIDIFORUM] for BLUE RIBBON-The makers of JAM and BARS and PIPES.

AMIGA USER FORUM [GO AMIGAUSER]

If it's not discussed in the other forums you can just about guarantee that it will be covered here. This has certainly been a lively forum in recent months with the Hot News and Rumours area running hot with all the latest comings and goings.

OTHER FORUMS

There are also a number of non AMIGA specific forums which are interest to many AMIGA users. Try the Cyberspace forum [GO CYBERFORUM] for some lively Virtual Reality discussions or may get some of the latest clipart from one of the many ART GALLERIES spread across CompuServe.

FILE LIBRARIES

In addition to lively discussions each of the AMIGA forums also carry a wide variety of AMIGA specific files all of which can be downloaded by users.

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The editors of Amiga Review frequent the AMIGAUSER forum to bring you news on Commodore, and updates on new products. You can reach us on Compuserve at 74431,1224.

Find-A-Word Wizard

This month I will be reviewing another Rush Software Title. (Boy, these guys have developed a lot of educational software!). The program is called Find-A-Word Wizard and enables the user to create word lists to solve on screen or to print out if required.

The standard Find-A-Word can have a maximum size of 25 x 20 characters. There is also the option to print a Jumbo Find-A-Word that measures 39 x 31 characters, but cannot be played on screen. Another useful feature is the Shapes Creator, which lets you make a Shape Find-A-Word. Some example shapes are included on the program disk.

I found the Shape Creator fun and easy to use. It involves selecting the paint colour and then filling in certain squares on a marked grid to create a shape. It works on a similar principle to the Icon Editor that comes with Workbench.

This is a very good feature for children, as rather than just solving Find-A-Word puzzles they can actually stimulate their creativity by designing their own shapes.

The printouts look good; you can output to laser printer or serial printers as well as dot matrix.

Wordlists for use in the puzzles can be created easily from within the program and can be edited at any time. This saves the hassle of using a text editor to create your wordlists, and assures complete compatibility.

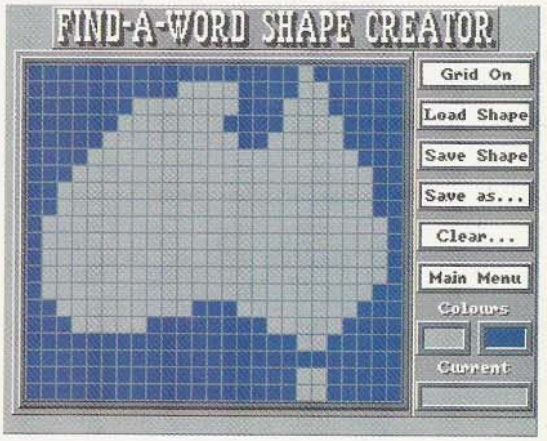
When a wordlist is loaded there is a delay which depends on the complexity of the list, and then the Find-A-Word is drawn by the computer. After it is drawn you must examine the wordlist displayed on the right of the screen and then try to find the words. To select a word, click on the first letter in the word and if you have selected the word correctly it will remain highlighted and will be removed from the wordlist.

Overall, I found this program easy and fun to use and, as a companion for Crossword Wizard (reviewed in May 1994), it makes a great set of utilities for creating crosswords and find-a-words.

The program installs onto a hard disk easily and has no copy protection. Rush Software rely on the honesty of the users of their software. If you like creating find-a-words then this program is ideal.

For more information on this program, and for details on ordering contact Rush Software on (042) 342107.

❑



The standard Find-A-Word can have a maximum size of 25 X 20 characters

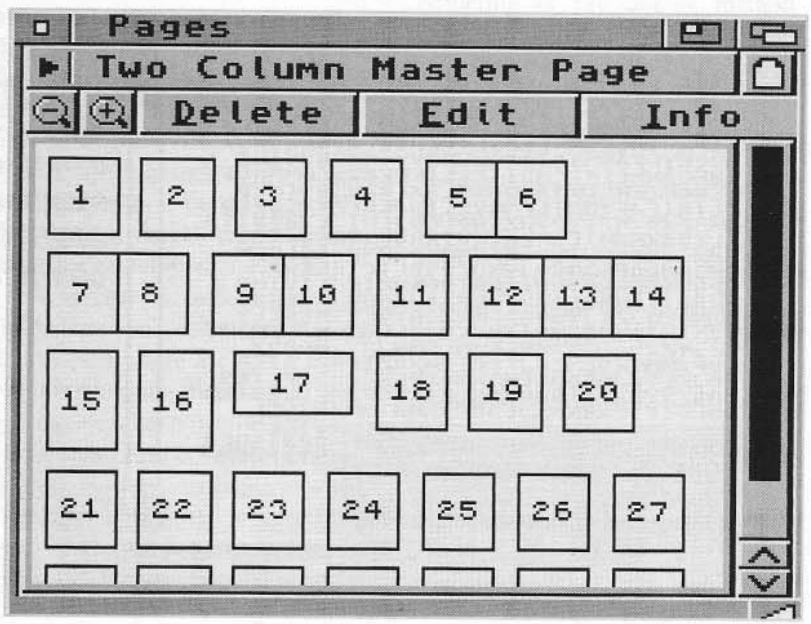
PageStream 3.0 Update

"When is PageStream 3 for the Amiga going to be released?" Well, here's the latest from Softlogic. They say the manual will be sent to the printer in the first week of July. They expect a four week turnaround from the printer. In the past a two week turnaround has been normal, but this new manual is much longer at a massive 550 or more pages. When the manual is back from the printer, Softlogic will ship PageStream3.

All of the boxes for your orders are folded. All of the enclosed materials have been collated and stuffed into envelopes. The disk labels have been printed and put on the disks. They're as ready as can be for the day the manual comes back from the printer and the program is done.

When they're told the manual is being shipped, the programmers will finish up any loose ends on the program, duplicate the disks, and mail out your orders.

Based on the printer's estimates, Softlogic are saying the program should ship at the very end of July. They realize that this is much later than originally stated, and have apologised for the delay.



Too aggressive

Softlogic admit they may have been a bit too aggressive in their estimates for shipping, but they say they "really love writing DTP software and want to give our users every feature they have asked for."

And how good will the first release be? Softlogic say "We will not release the program with any known bugs. Many years ago, we rushed the first version of PageStream to market, and it has taken us a long time to build our reputation as a developer of high quality software.

"We don't want to make that mistake again and rush 3.0 to market, so we are doing everything possible to make the first release of PageStream 3.0 as bug-free as we can. As a result, we have decided to upload a pre-release beta demo of PageStream3 to our BBS, GEnie, CompuServe, and Portal/Internet. Watch for this in mid-July.

"This will give you a chance to play with the program and learn about it before you create real

documents. There are so many features in the program that our betatesters can't hope to test them all, so you will be able to help us ensure the first release is as solid as possible. We encourage you to download this demo version and look over the program. It will only be available online, not by mail; you cannot call and ask us to mail you a copy.

"When the manual is actually at the printer, we'll give you an estimate for the pre-release beta demo. When we give you the demo, we'll give you a final estimate for the release of PageStream 3".

New Import and Export Options

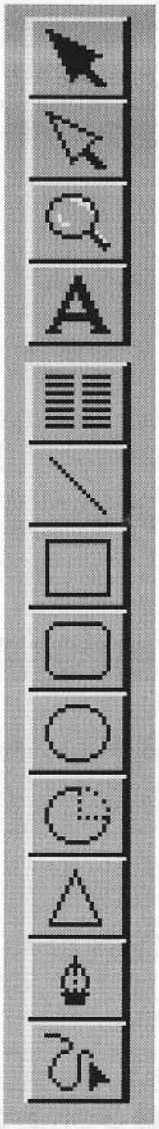
According to Softlogic, one of the amazing new feature of version 3.0 is the ability to import an Aldus Freehand EPS illustration, edit it, and then export it in Adobe Illustrator EPS format. No other DTP program can do that, not even a Mac or PC DTP program! Pictures look wonderful in 256 colors on AGA Amiga computers, and in 16 colors on non-AGA machines.

The floating Edit palette is an incredible time-saver, as are the recordable ARexx macros. And yes, after all these years, PageStream finally can print real thumbnails, and has every tab alignment type you could want, plus dot leaders (filled tabs)!

Gradient Fills

If you're a PostScript user, wait until you try an inverse saw-tooth gradient fill with a propeller spot function - you can even make the gradient in the shape of the object rather than a simple linear or logarithmic gradient. Choose a PostScript Printer Description file to automatically set the optimum screen angles and frequencies (the cryptic Special text gadget has finally been retired!).

BME 2.0 is also great. Softlogic didn't promise any new features for it beyond ARexx support because they weren't sure what they'd have time to do, but here's the scoop. BME2 has been upgraded to work in up to 16/256 colors, depending on your computer, and has also been rewritten from scratch! Like Page- Stream, it features recordable ARexx, but it can do much more to a picture now than before.

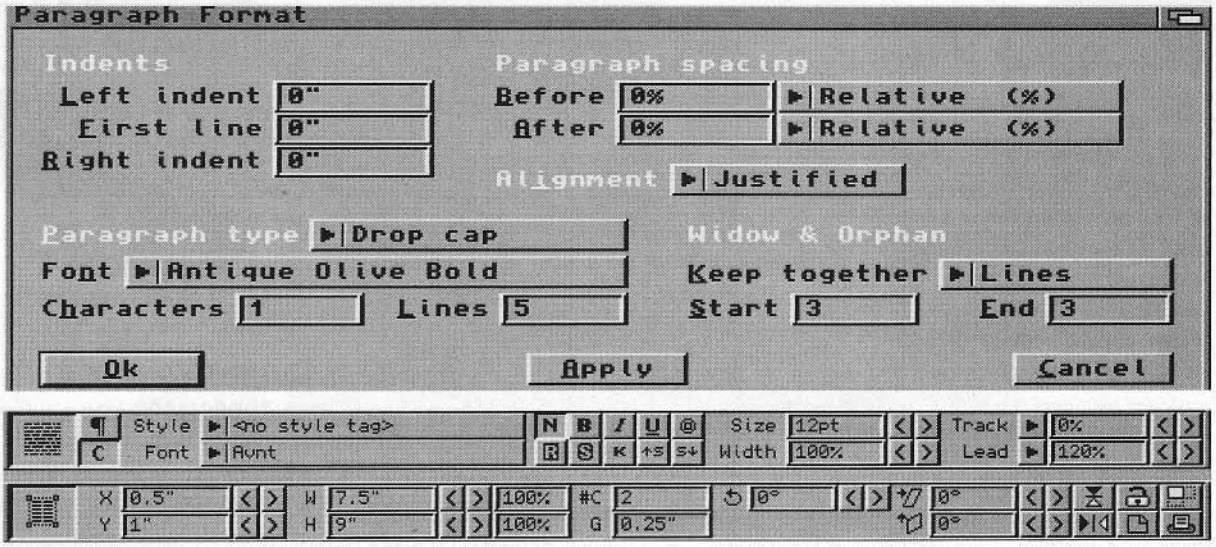


In addition to basic painting and filling an area, BME2 can move selection areas, and change the contrast or brightness of a picture. You can pixelize a picture for neat effects, and even convert between CMYK, RGB, grayscale, palette and black and white.

The autotracing feature now has simpler controls to make it easier to get good results, and clipboard support has been added. Best of all, BME uses the same import/export filters as Page- Stream 3, so you can import and export in IFF ILBM, TIFF, GIF, PCX, and BMP formats!

❑

Next month we'll run the comparison chart which shows the power of PageStream 3.0's new features compared to Quark Express and Professional Page.



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REAL 3D NEWS - AVAILABLE NOW

Windows 3.1 release version. It absolutely flies on a Pentium! Stand alone render engines for Amiga, Windows and Windows NT. Automatic network distributed rendering on IBM (Amiga soon). (Windows NT, Silicon Graphics and Sun versions soon).

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Tutorial

Real 3D

By Bruce Brown

To a new user, even one who has used other 3D packages, REAL 3D's abundance of requesters, menus, tools and features can seem overwhelming. In this series of articles, I aim to provide many useful short hints and tips to help you towards your next masterpiece image or animation with REAL 3D.

I will feature new material not in the REAL 3D documentation, as well as coverage of areas users have had the most difficulty with, and occasional hot news. To maintain interest for both beginners and experienced users, the tips will be short and sweet for advanced users, and there will also be fairly detailed material for less experienced users. I'll provide look-up references in the longer tutorials.

Clip Mapping

First, we need something to map. Mapping is the process of projecting each pixel of an image onto a 3D object.

In a paint program, pick a large sized font and type in some text in any colour other than the background colour. Pick it up as a brush, and save the brush into the R3D2:Textures drawer with a suitable name, for example clip.brush.

Next, create a sphere in REAL 3D in XY (front) view. Now open the materials window and create a material with the following characteristics:

Name - Clip, Texture - use the brush you just created. Use the materials window Define/texture menu to select it.

Select colour map, Clip map, and Transparent colour boxes. Also, make sure that the Transp.R Transp.G & Transp.B gadgets are 0, 0, 0. Click apply, and close the materials window.

LMB (left mouse button) drag select around the sphere, change to XZ (top) view, select menu create/mapping/sphere, select the Clip material, drag select around the sphere again to snap to its centre, and then size the mapping sphere just a little larger than your sphere object. Change back to XY (front) view.

Here are some important points and manual references. See tutorial page 3.9 - Clip mapping will not work with either draft or environment rendering because only transparency is simulated in these modes to increase rendering speed.

Also see tutorial page 5.2 - if your scene contains transparent objects, or you are using clip

mapping, the environment colour and the background colour should be equal, and neither background or environment gradient functions should be used.

So open the render settings window, choose Lampless mode, make sure the environment and background colours are the same, and none of the environment mapping boxes are ticked.

Take a perspective view, use the cursor keys to get a suitable viewing angle, Render, and there it is - clip mapping!

If you need environment maps, you can create scene objects and give them a "scene" attribute so they are not visible except by reflection from objects in your scene.

Some ideas on how you can use clip mapping. You can create very complex looking objects, but all they are is one simple solid and a texture. For example, a chain link fence. The easy way - draw a large single portion repeatable chain-wire pattern in a paint program using a red gradient to define the relative heights, brighter means higher.

Make it a tiled bump and clip map material and parallel map it onto a rectangle. Bingo. Instant fence. If you need to zoom in to one link of the fence full-screen, you'll have to model the fence. You can use the compound tools to do this, but we'll leave that for another time.

If you want to use 24 bit brushes or images as clip maps, the transparent colour is defined in 24 bit colour space, so all values vary between 0 and 255. Some extra care is needed to ensure you enter the correct RGB values for the background colour into the materials window Transp.R Transp.G & Transp.B gadgets. It works just as well.

ON THE BLINK - on again, off again (for advanced users)

Here's how to turn various objects on and off using the ATTRIBUTES animation method. You can use this to animate on/off things like motion blur, mapping, light source, and invisibility attributes.

You can make blinking lights, objects that disappear, or textures that blink in and out. In fact, any object attribute. Quite a powerful method. Create the following structure.

NOTES

Object -
(Level containing your objects)
Targets -
(objects to be affected)
Attributes -
(ATTRIBUTES)
(attributes animation method)
Active -
(create/controls/attribute - set the ON attribute)
Inactive -
(create/controls/attribute - set the OFF attribute)

Techno blurb

If the time is within the time line of the object, the method assigns the attributes of the attribute object to the target objects. Otherwise the second attribute object is used. Or you can use the timeline editor to set the start and end of the action with the mouse.

What does this mean? Well, create the above hierarchy with a sphere as the target, make the first attribute as RT-Invisible, and the second, not RT-Invisible. Now add a tag to the ATTRIBUTES method (t hotkey):

SFOR l = Frm % 2

SFOR means 'String FORmula', 'l' is a general purpose variable. The 'Frm' variable is defined by the animation system and is the current frame number. The '%' is the maths modulo operator which does the job. The result of the operation 'Frm % 2' is 1 for odd frames and 0 for even frames. This means the object blinks out every odd frame! Try a ray-trace of this one, but you will need to slow the animation down to see it blinking.

Try SFOR l = Frm % 5 for a blink every 5th frame. More complex formulas are even more interesting. Try this one :-

*SFOR l = if (sin (t * 2 * PI) > 0, 1, 0)*

You can use any of the many REAL 3D variables in formulas like this for just about anything. It's hard to find things you can't do. See the docs and on-line help for all the variables you can use!

NICE WORK - what REAL 3D users are doing.

The realistic plastic cup image on the first page is by Steve Griffin from Adelaide, SA. Steve produces commercial work with REAL 3D, and the original very large IFF24 version of this was used in a recent full page magazine product advertisement. Steve can be contacted on (08) 433 448.

LETS FACE IT - full frontal fonts

Here's a quick tip to improve the look of those logos and fonts with the boring flat faces which always seem to reflect badly front on. For each letter or single section of the logo, create a very large cylinder in top view and do a boolean AND between the cylinder and the letter to put a very slight curve on the front face. This

will give you a nice glint as you pan or zoom past. See the picture to get the idea.

HOT NEWS

- Available mid-June - Stand Alone Render Engines (SARE's) for Amiga and Windows 3.1 (no dongle required). You should see REAL 3D rendering on a Pentium!
- Amiga Version 2.48 upgrade, free for V2.47 owners.
- Final release Windows version. Includes free SARE.
- Available late July - Auto- matic Distributed Rendering (ADR) for Amiga and Windows.
- DEC Alpha WINDOWS NT version (with SARE & ADR).
- Intel WINDOWS NT version (with SARE & ADR).
- SARE'S for SGI (Silicon Graphics) and SUN.
- Apex (the Essence folks) are close to releasing Forge for REAL 3D. Should be hot!

REAL 3D USERS FAVOURITE PASTIMES

Watching the look on 3D Studio (well known PC 3D package) users' faces when you zoom in close to a lens magnifying something in REAL 3D. Perfect glass, no object faces, no jaggies, real magnification, no fuss.

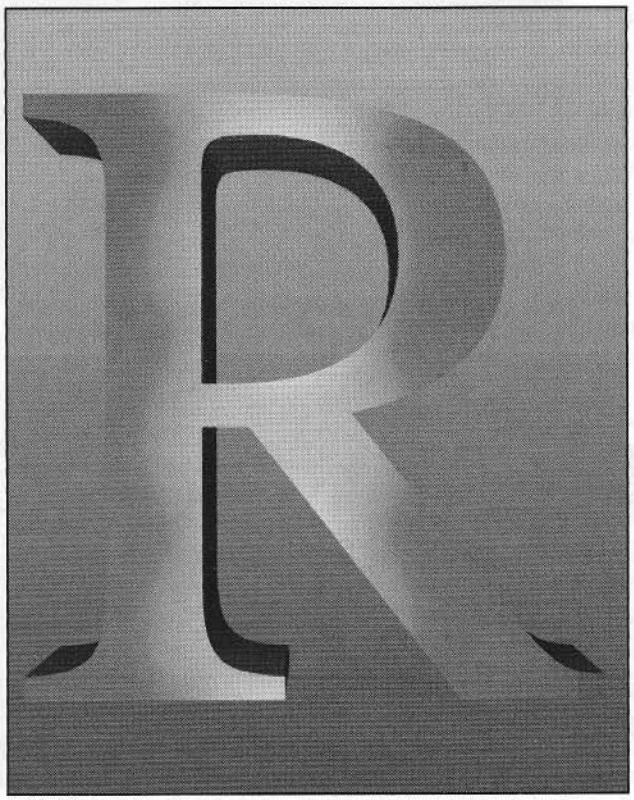
This is a two minute demo any REAL 3D user could do in their sleep since version 1.3 days. Ho hum. Next challenge please! The PC version of REAL will put the cat among the pigeons!

IS THERE ANYBODY OUT THERE? - A whole world of support.

REAL 3D support includes:

Phone/FAX - Free telephone support for registered REAL 3D users.

BBS - see the latest list in REAL 3D V2.48's on-line help. Australian BBS is Compulink (02) 970 6444.



Lets face it, a curved font frontal

Internet - There is a world-wide REAL 3D mailing list full of news, questions, answers, reports and tips. All the support guys from around the world hang out here.

The Internet REAL 3D Mailing List Address is as follows: real3d@gu.uwa.edu.au. To join the list, you must have an Internet mailing address. In order to subscribe to the mailing list, send a message to:

listserv@gu.uwa.edu.au
Subject Line: REAL 3D

The first line of the message should read:

subscribe real3d FirstName LastName (<- put your name here)

If you have problems, e-mail the REAL3D Mailing List Administrator:

brendan@ucc.gu.uwa.edu.au

Local User Groups - currently being organised in each major city.

Newsletter - hints, tips and news. Posted to registered users, by Digipix, the Australian distributor of REAL 3D.

NEXT TIME

The next article will include RPL Tricks & Macros, What's Your Vector Victor? - What's this vector stuff? Nice Water - Refract and have some nice bumpy waves, Procedural Textures - How to use them. Also, comments, submissions and hints from readers are most welcome. Send 'em in!

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Until then, it's gotta be REAL!

❑

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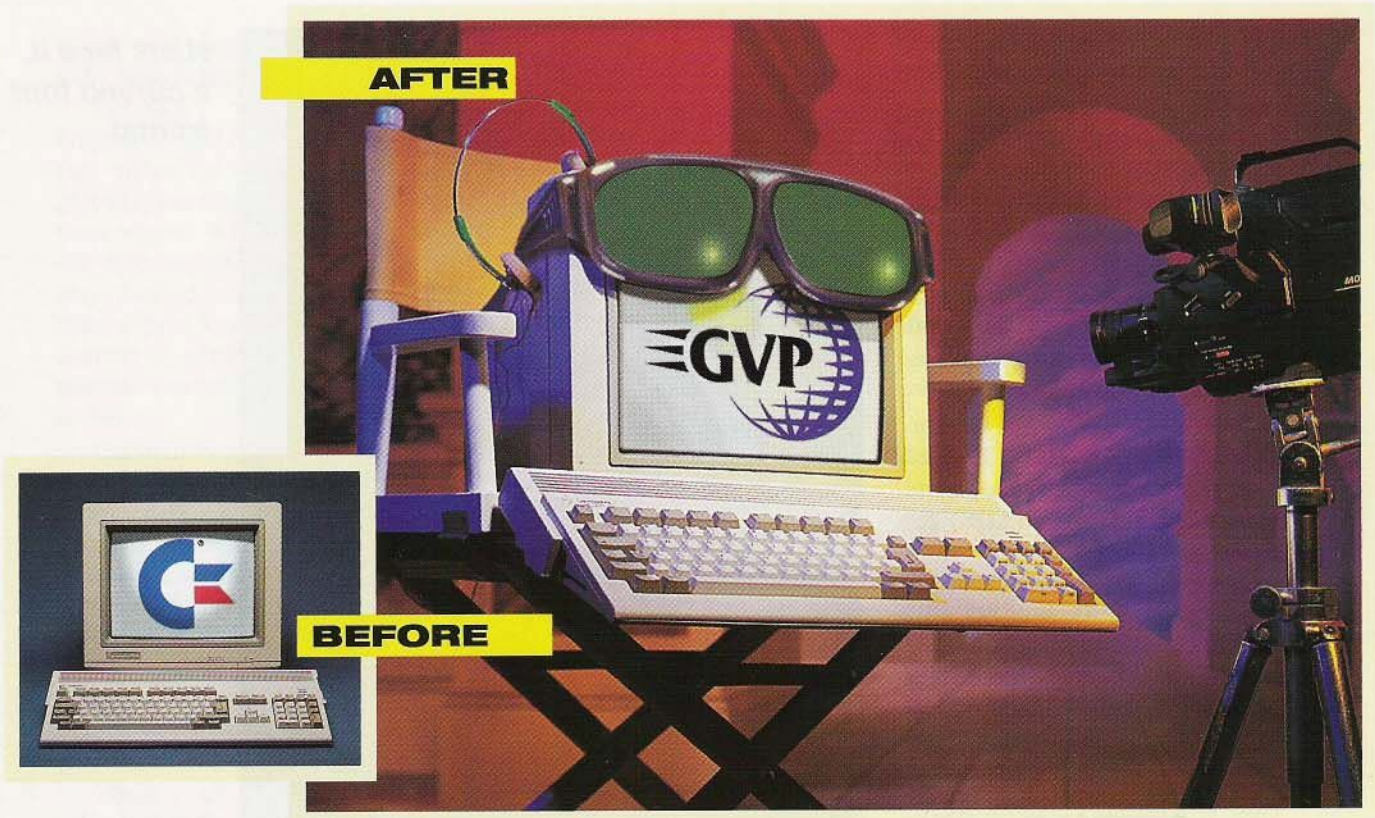

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The **G-Lock** genlock is a highly versatile, professional quality genlocking board for the Amiga platform. In any multimedia computing environment, the need to manage multiple video and audio sources is critical, whether you view them on your computer screen or through an external monitor or tape source. In order to have different video sources appear together on the screen with professional results they must share the same exact timing of their sync signals, and our **G-Lock** provides that synchronization.

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Online

By Andrew Leniart

Correction - Frozen Fish CD-ROM

Last issue I made an incorrect statement regarding the Frozen Fish CD-ROM disk. I said that it could be used on MS-DOS machines. Quite simply, I was wrong.

I ordered and purchased the Frozen Fish CD-ROM disk for my own BBS from Megadisc and quickly found out that MS-DOS will not read most of the contents. Sure, the filenames are mostly eight characters with a three character suffix, but they are completely innacessible to an MS-DOS machine because of the way the disk has been designed and laid out. To my mind, this is absolutely crazy.

It's a well known fact that many, in fact most, Amiga supporting bulletin boards are run on IBM clones under MS-DOS. This is the case because of the abundance of cheap or free BBS software available for the IBM platform. Besides, why waste good Amiga CPU time with a meanless task like running a BBS when a cheap second hand clone can do the job for you?

For a CD-ROM disk seller like Fred Fish to create a "BBS ready" Amiga BBS CD in such a way that MS-DOS machines can't read it effectively ensures that hundreds, if not thousands, of copies world wide will never be sold. This is self defeating and crazy. I'll be contacting Fred Fish shortly about this and will report back in these pages when I have an answer.

Offline Mail Reading

Quite a lot has been written in the past about the advantages of "pointing" for mail from a BBS. Yet even though the benefits are many, it requires a certain amount of dedication on your part and naturally doesn't suit everyone.

If you're not a mail freak and just want to occasionally catch up on the latest gossip in a few conferences, you might like to consider offline mail reading instead. It works on a similar system to pointing, without needing a great deal of hard disk space or other system resources.

I'll be using the BlueWave offline mail system in my examples here, because I've found it to be the best system for both the system operator and user, and also because it's now very well supported by the Amiga platform.

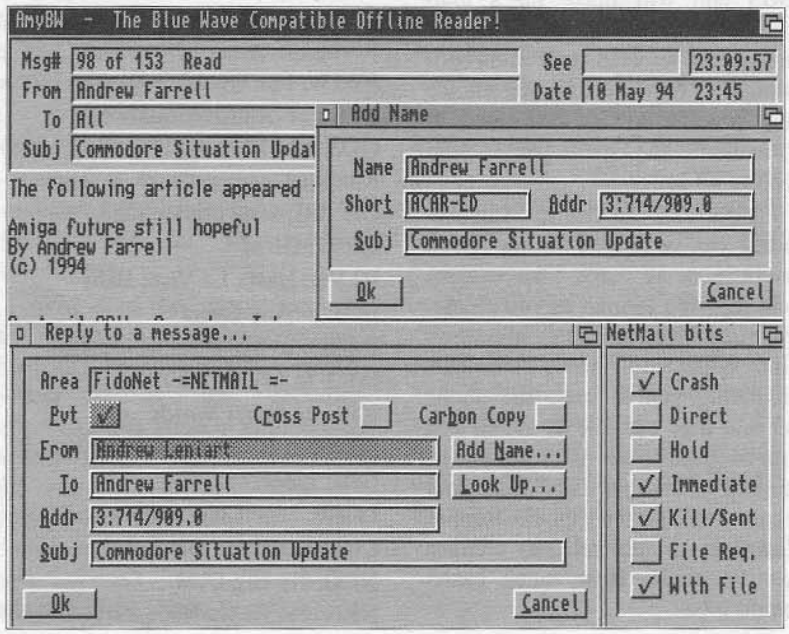
AMYBW

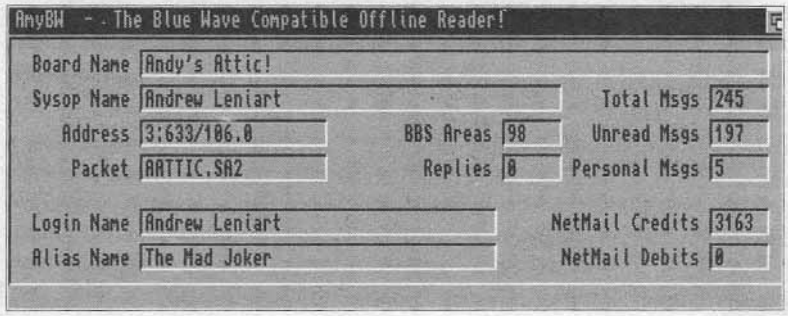
The only BlueWave reader that used to be available for the Amiga was QBlue, with its five message limit until registered. It had limited features and didn't support many of the options that the BlueWave system offers. I'm happy to say that things are looking MUCH better now! Enter AmyBW by Leon Makkink.

This little reader is a dream to set up and can only be described as sensational! Just about everything can be configured, including font used, colours, which editor you want to use to write your messages with and more. AmyBW also gives you the ability to "freq" (file request) files to be sent with your mail packets.

You can automatically send private netmail replies to echomail messages if you choose to, append taglines to your messages, steal taglines from other people's messages, create a file which contains short names for people you like to regularly exchange mail with and a whole lot more. So how much would you expect to pay for something as useful as this? Twenty dollars US? Thirty?

How about nothing? That's right folks, this power packed utility is absolutely free. Getting rid of the [Not Registered] message is as easy as sending a netmail to the author. Great stuff!





Download AmyBW from your nearest Amiga supporting BBS and get in on the action. If you can't find it anywhere, feel free to log on to my BBS and download it from here. Just log in as GUEST (no password required) and head for the Free Files area. Once you have your copy, here's how it all works.

Getting Your Mail

Next time you log onto your favorite BBS, enter the BlueWave door and you'll be asked to answer a few simple questions about things like which transfer protocol and archiver you want to use and so on. Once that's done, simply select the message areas which you are interested in reading and hit the mail bundling key. The BBS end will make up a mail packet for you containing all the areas you selected. It'll archive it with the archiver of your choice and prompt you to download it. Download the mail packet and you're all set!

Now you can fire up AmyBW when you've logged off and spend as little or as much time reading and replying to mail as you please. No time limits to worry about, no line noise, no family members hounding you to untie the phone so that they can use it. When you log back on to the BBS next time, simply go into the BlueWave door again and use the Upload Replies function to upload any replies you've made. How much easier could it be?

Things to Know

Now that you can read and reply to messages in various conferences, you may find yourself scratching your head at some of the abbreviations. After a while, I guarantee you'll find yourself using a lot of these yourself. Their purpose is to simply say something common without the need to type it all out. Here are a few of the more popular ones as examples to start you on your way.

ADN: Any Day Now
AFAIK: As Far As I Know
BK: Because
BTSOOM: Beats The (Stuffing?) Out Of Me
CMIIW: Correct Me If I'm Wrong
CUL8R: See You Later
FITB: Fill In The Blank
FUBAR: Fouled Up Beyond All Recognition
FWIW: For What It's Worth
FYI: For Your Information
GD&R: Grinning, Ducking, and Running
GO PRI: send private mail
GR8T: Great
HLVB: Hasta La Vista Baby
IAE: In Any Event
IMHO: In My Humble Opinion
IMO: In My Opinion
IOW: In Other Words
ITSFWI: If The Shoe Fits, Wear It
L8R: Later
LLAP: Live Long and Prosper
LOL: Laughing Out Loud
NBD: No Big Deal
NRN: No Reply Necessary
NTL: Nevertheless, or Nonetheless
ROFL: Rolling On the Floor Laughing
RSN: Real Soon Now - industry term denoting indeterminate period of time
RTFM: Read The (Fabulous?) Manual
SNAFU: Situation Normal: All Fouled Up
TTBOMK: To The Best Of My Knowledge
TTFN: Ta Ta For Now

Well don't just sit there! Grab your copy and get in on the action. Next month, some of the do's and dont's of participating in Echomail conferences. ***Andrew Leniart may be contacted direct via modem at Andy's Attic BBS 24Hrs a day on (03) 749-4897 Fidonet address 3:633/106, AMigaNet 41:300/106.***

❑

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Blitz Basic

By Roy Hurley

BLITZ AND GADTOOLS

This month's topic of discussion is designing and using Gadtools Graphical User Interfaces from within your Blitz programs.

Gadtools are a collection of system gadgets and menus for Workbench 2 and above. They were supposed to make gadgets more accessible and flexible to Intuition programmers, who up until then were struggling through a long laborious process to put even the simplest buttons or sliders in their applications.

Whether Commodore was successful in this endeavour is still very much open to debate, but like them or hate them, Gadtools have become very popular. I get by far the most calls from users who have lost their way with programming their Gadtools GUI's.

Gadtools support was added to Blitz in issue 5 of the Blitz User Magazine, or BUM for short. Several bug fixes and extensions have been added in issue 6, including the revised docs. If you got Blitz from the Amiga Format cover disk, you won't have the latest version, and may not have Gadtools support. You should be using v1.8 for the best results. You can discover what version of Blitz you have in the opening requester when you first run it.

The first stage in the creation of your slick, ground breaking graphical user interface is to design the on screen layout of all your windows, buttons and sliders. This can be very tedious when done by hand. Trying to line up the rows of gadgets neatly is almost impossible, and there's no way to try it out as you go either.

Aargh!

Luckily, help is at hand, in the form of GUI designers. If you haven't seen these, imagine a program which allows programmers to create their buttons, sliders and windows by moving them around on the screen with the mouse, and adding new gadgets with simple menu selections. You can even go into a special test mode, which allows you to play with your interface to get a real feel for it from a user's perspective! When you are happy with the layout, you simply order the program to create the Blitz source code for you, and include that in your program.

Blitz used to ship with a GUI designer called "Intuitools", which has been greatly revamped and improved to allow the creation of complex custom Gadtools interfaces, in addition to full support for all your old favourite standard Blitz gadgets. If you haven't got Intuitools Version II, and you design the odd GUI, it's well worth getting hold of. The catch is it's only available to Blitz User Magazine subscribers.

Another option is to use a PD designer called "Gadtools Box" to create your interface, then convert the program's machine language output into Blitz code using another utility. Both the latest version of Gadtools Box and the conversion utility are available on Compulink (Amiga Connection) BBS on (02) 970 6444.

Having created your interface, either by hand or by using a utility, the time has come to plug it into your program. This month, I'll show you how to create a simple application which highlights all the basic principles involved. From there, I hope you can go on to create bigger and better things, then send them in to me for a look.

The program is a calculator, which is a module from an actual commercial application currently under development. The object of this module is to allow a user to design a robot from various parts and components, and update the costs display in real time as the user fiddles with various configuration options.

The module was created with Intuitools 2, and the source code imported into the main program. The main section is just an event loop which sleeps until the user interacts with a gadget, when the program acts on the user's request, updating the display.

The source code for the whole program, transplanted into a complete program which you can type in and run, is over the page.

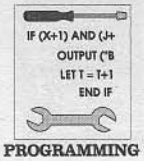
EXPLANATION

First, the program asks the system for the Workbench screen, so that Blitz can open a window on the Workbench. Next, it instructs Blitz to move the Workbench screen to the front, and not to open a default CLI window.

Then comes the output of the Intuitools utility, which was used not only to position the gadgets, but to define their properties as well. By using the GTtags command, the program displays the current level of the slider in (in this case) two digit format.

After some simple positioning of checkboxes (some are disabled to illustrate the technique) the program sets up some numeric display boxes. The GTNumber and GTText gadgets are used for displaying data, not allowing the user to interact with them.

The AddIDCMP command tells Blitz to send messages to




```
DEFTYPE.l

WbToScreen 0 : NoCli: WBenchToFront_

f$="%2ld":#tag=$80080000          ; format string and tag constant

GTTags #tag+42,&f$,#tag+41,2      ; Show slider value tag
GTSlider 0,1,32,11,138,9,"CARGO",2,0,10
GTTags #tag+42,&f$,#tag+41,2
GTSlider 0,2,32,23,138,9,"ARMOUR",2,0,10
GTTags #tag+42,&f$,#tag+41,2
GTSlider 0,3,32,35,138,9,"ENGINE",2,0,10

GTCheckBox 0,4,411,49,26,11,"TacNuke",2:GTDisable 0,4
GTCheckBox 0,5,411,36,26,11,"Rockets",2:GTDisable 0,5
GTCheckBox 0,6,411,23,26,11,"Laser",2 :GTDisable 0,6
GTCheckBox 0,7,411,10,26,11,"Boltguns",2

GTCheckBox 0,8,291,10,26,11,"Vision",2
GTCheckBox 0,9,292,23,26,11,"Radar",2
GTCheckBox 0,10,292,49,26,11,"Sesmic",2
GTCheckBox 0,11,292,36,26,11,"Infra",2

GTNumber 0,12,160,58,32,12,"ORE",1,0
GTNumber 0,13,160,72,32,12,"FUEL",1,0
GTNumber 0,14,160,86,32,12,"TRONICS",1,0
GTNumber 0,15,160,100,32,12,"BIO",1,0

AddIDCMP $400010    ; scroll on mouse
Window 0,52,45,523,134,4622,"Droid Designer V1.0",1,2,0    ; open window
AttachGTList 0,0                  ; attach GT list

GTBevelBox 0,8,18,240,43,0        ; scroller's frame
GTBevelBox 0,84,65,140,64,#tag+33      ; cost's indented frame

Repeat

  ev=WaitEvent
  Select ev

    Case $40          ; GADGET EVENT

    ; Gadget played with, so display new cost!

    If GadgetHit=1 Then cargo=EventCode
    If GadgetHit=2 Then armour=EventCode
    If GadgetHit=3 Then engine=EventCode

    co=cargo+armour+engine
    ct=engine
    cf=engine

    If GTGetAttrs(0,7,$80080004) Then co+2:ct+1:cf+2   ; Boltguns

    For t=8 To 11
     If GTGetAttrs(0,t,$80080004) Then co+1:ct+3:cf+1  ; Sensor units
    Next

    GTSetInteger 0,12,co
    GTSetInteger 0,13,cf
    GTSetInteger 0,14,ct
    GTSetInteger 0,15,cb

  End Select

   Until ev=$200 ; repeat until a Window closed event happens

  WBenchToBack_

End
```

Intuition every time the mouse moves and gadgets are held down. This lets GadTools update values while the user holds the mouse down over a gadget. Try leaving this out and observe the effect.

Now the GadTools have been initialised, we can get into the program proper. A window is opened, and the prepared GadTools list of gadgets attached to it with the AttachGTList command. Some decorative bevel boxes are added to make the display more attractive and functional. According to Commodore's style guide, raised areas are for the user to manipulate, lowered areas are for information only.

The main body of code is within a Repeat...Until loop, which continues until the user hits the close gadget. Inside this loop, the program is put to sleep with a WaitEvent command. This makes Blitz wait until an event happens. In this case we're really only interested in gadget events, and these are acted upon.

In general, Blitz tells you which gadget the user hit via the GadgetHit command, and the value is returned by the EventCode command. An example of this is the slider handling, which sets a basic variable to a value 0 to 10, based on which slider the user moved. The status of checkboxes is found by a call to GTGetAttrs, and the costing variables are refreshed and displayed with a call to GTSetInteger.

Although this example is a simple one, I hope it illustrates the general technique for GUI creation within the Blitz environment.

You can reach me via modem on Powerhouse (042) 616380 or in Sydney on Compulink (02) 970 6444. You can write me snail mail at Box 1420, Wollongong 2500.

❑

Good Design

"Finally, Amiga Review is 100% produced using Amigas!"

By Stuart Farrell

"How many pixels are there in an inch?" That question was actually asked by a work mate. It's a bit like asking how much water is there in a bucket. It depends on many things. However, the question illustrates the need to understand the basics. Anyone can desktop publish, but not everyone can do it well. Sure, you need to be able to use the software and hardware, but you also need to understand what good design means.

Communicating

Communicating or Just Making Pretty Shapes, by Colin Wheildon, is a booklet based on a four year study of typographic design by the Newspaper Advertising Bureau of Australia ((02) 955 1044). Wheildon highlights interesting surveys of differing designs and their success in communicating messages.

To quote the booklet, "design is not, or should not be, mere decoration and abstraction, but part of the business of communication."

Although the authors didn't want the results to be taken as design rules, they are excellent guidelines. The skill in designing comes from knowing the basic rules, and then breaking them creatively.

Just about everybody has their own opinion on what makes a good design. But no matter what style you adopt, you should not forget the whole purpose for which you are designing - to communicate a message.

Good design can only be measured by the response of those for whom it was intended. If you produced, for example, a booklet that looked fantastic, yet made it hard for the reader to understand your message, you've failed. You must consider you market's needs before you begin designing.

For example, I also do a lot of production on PC Review. When the company I work for took over the magazine a year ago, we decided to change the format. Since PC Review is aimed at non-expert small office and home computer users, we kept a simple design.

Was this strategy successful? We doubled our circulation in under a year!

The New Look ACAR

Now, we've revamped Amiga Review. Amiga owners are more interested in the graphic side of their computers than PC owners (we tried an Art Gallery in PC Review, but it fizzled out). So when were changing the format of this magazine, we were more liberal with the design.

So now, you have an Amiga magazine produced entirely using Amigas, from the design and layout to colour separations.

We use Professional Page 4.1, although we're holding our breath for PageStream 3.0. From the feature list (which we'll publish next issue), the new PageStream beats the pants of ProPage and matches Quark Express. Until then though, I'll run a little ProPage hints and tips section at the end of this column, and give away all my secrets. Well, maybe a few.

We are returning to rendered images on the cover, as we feel 3-D imaging is one of the Amiga's strong points (if you've got it, flaunt it!). We've also taken the Art Gallery to four pages. We are also testing the new "bulky" paper sections, and there are many other subtle changes. If you hate them or love them, write to us - we are always interested in hearing what our readers think!

Professional Page Tip

When designing in ProPage, the screen refresh can become very annoying, particularly when you are pressed for time. To speed things up, pull down the preferences menu with the right mouse button. The options you're interested in are Wireframe Graphics, Black & White and Screen Mode.

Firstly, your screen mode. Normally this would be set to 640 X 512. But if you're dealing with an A4 page and want to have a reasonable magnification you can adjust the size of the screen you're working with, so you can scroll around without a refresh.

As you can see in the Pic opposite, the screen size I use is 800 X 900.

Wireframe Graphics, turns any clip art into a wire frame; ProPage won't redraw it every time it refreshes the screen. Black & White reduces the displayed image resolution and turns colour into grey, for a further speed boost. You can also opt to hide images by double clicking on the image box and clicking Hide Contents.

Warning: ProPage has an interesting bug, whereby if you save a folio with several images all hidden, or choose not to load the Bitmaps it may swap them around, or simply put the same image in all of the boxes.

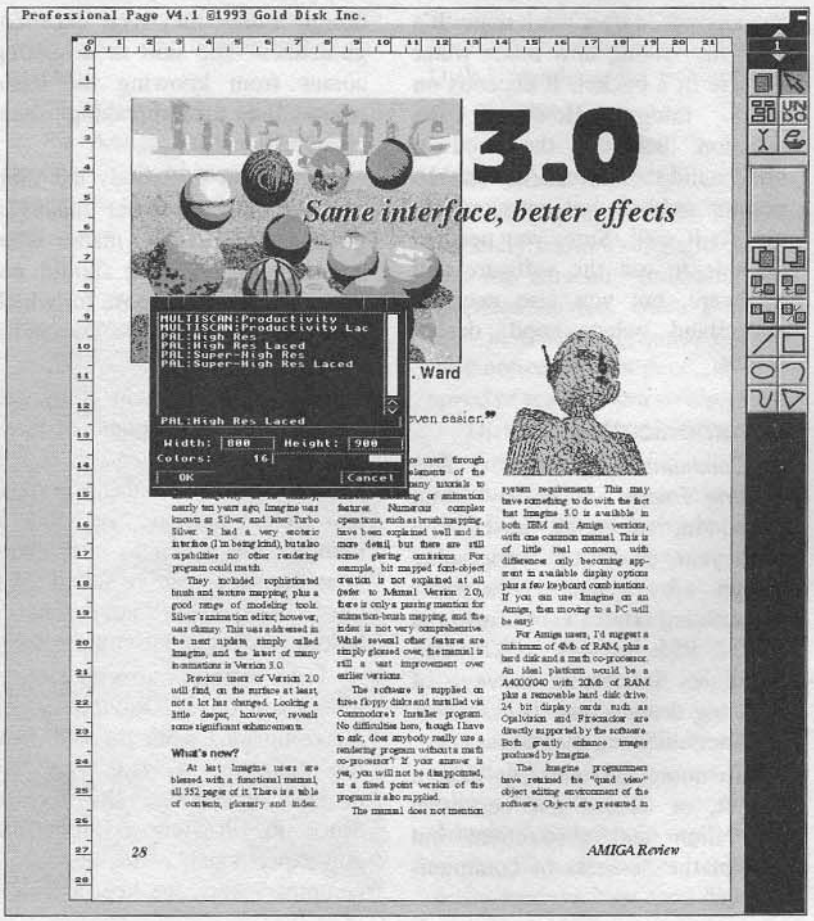
So you must check all the images are correct before you output anything.

One more hint. When you double click on an image box, you'll notice a small button called Bitmap Info. Click on this and you can see what the file is called and the size and type of image. Very useful if you are dealing with multiple images and you forget what one is called. Not that I ever do that. (See pic below.)

If your having any problems using Pro Page, send me your questions and I'll attempt to answer them. Next month I'll look at a few bugs and how to get around them.

Until next month, happy publishing, and I hope you like the new look Amiga Review!

❑



C64

By
Owen James

A new public domain library has been launched in Australia, trading as Graphics Company. As the name might imply, Graphics Company focuses only on graphics and graphic application software for the C64 and 128. Of special interest to GEOS users is their collection of GEOS clips, which may be imported into geoPaint, geoWrite, geoPublish, and so on. Graphics Company can also convert your images between IBM and Commodore formats. For more information or a catalogue, write to Graphics Company, 19 Fletcher Court, Wodonga Vic 3690.

The Eastern Suburbs Commodore Group of Melbourne would like it known that their user group is still alive and kicking. ESCG caters for all C64/128 users, but is especially interested in hearing from new C64/128 owners.

For more information contact Geoff Travers on (03) 800 1223.

If there are other user groups around Australia or New Zealand looking to promote themselves, send your details to:

The C64 Column, PO Box 288, Gladesville NSW 2111 or via Fido Netmail at 3:713/888.999.

Scarce Software

Software for the C64 is becoming increasingly scarce, and not just in Australia. In the US, where the C64 has enjoyed the most popularity over the past ten years, retailers are leaving the market in droves, as are the major wholesalers. US-produced C64 publications, of which there were once many, have dwindled down leaving just the newcomer from CMD, Commodore World.

In Britain, the picture is slightly more rosy. The C64 still remains a popular choice among game players, and there are several new games released each month. There are still a handful of C64 magazines coming out of Britain, but few offer anything more than game tips and reviews.

Here in Australia, although most retailers and wholesalers have long since abandoned the C64, it still enjoys good support from public domain outlets and a handful of local retailers. It has become a hotly traded item at garage sales and local markets where a keen shopper can pick up an entire system very cheaply.

New Disks

Brunswick Publications, long-time supporters of the C64, continue to release compilation disks of C64 software at a regular rate. Below are some of their more recent releases.

DISK 192 - Children's Education. Contains a large collection of educational programs for children aged between 5 and 12. Programs cover such subjects as maths and spelling, and most use graphics and sound. This disk also includes three interactive fairy stories and several games.

DISK 193 - Disk Drive Maintenance. This disk includes many hints and tips for disk drives. Included are text files describing care and cleaning of your drive and reducing drive "knock", along with several do-it-yourself disk drive projects for the electronically gifted.

DISK 194 - GEOS PD - IBM Clipart. This is a double-sided disk with a mammoth collection of clip art converted from the IBM world to C64 format for use in GEOS applications. There are over 500 images on this disk, covering a wide range of subjects. A great start for those dabbling in publishing or just wanting to spruce up their letters.

DISK 197 - Stationery Store. This is a program especially designed for users with a Star LC-10, MPS 1230, CBM 1525 and most other Commodore compatible printers. Designed to print lined paper, music staves, calendars, grocery lists, letterheads, forms, and more.

DISK 200 - Assemblers. The C64 is one of the easiest computers to learn the basics of assembly language programming on. This disk includes four machine code assemblers, including the hugely popular 6510+. Also on disk are several sample source code listings and instructions on how to get started. If you're at all interested in learning programming, this disk is a great place to start.

DISK 205 - This disk contains Calc V1.3, a full-featured spreadsheet program. It's quite simple to use, and is suitable for home and small business use. Also on this disk is the Easy Chequebook program for managing accounts.

DISK 206 - Program Graphics Manager. This disk will be of special interest to anyone who has toyed with programming graphics on their C64. This system uses a library of fast machine code routines that may be accessed from your own BASIC programs. Features include bitmap manipulation, multiple character sets, 14 sprites on screen, using hidden RAM for character and bitmap data, and much more. Why re-invent the wheel?

DISK 208 - Astronomy. This disk contains a great deal of information about the solar system and neighbouring galaxies.

Animated displays of planetary orbits and a large database of information are included.

DISK 209 - Mega Dump. No, Mega Dump is not a database of Melbourne [The editorial staff of Amiga Review would like to distance ourselves from this statement. Hate mail to Owen, please. Ed].

It's a program to allow the viewing and printing of pictures from many different formats, including Saracen, Koala, Advanced Art Studio and even the now infamous FLI graphics. Will print with most Commodore-compatible 9-pin printers. Also included on the disk are ten impressive pictures to goggle at and print.

DISK 215 - Business Letters. As any business person will tell you, the writing of correspondence is a time-wasting evil. This disk can remove at least some of the hassle.

Included are over 100 pre-written business letters that have been converted from the world of IBM. Subjects include Reminders, Apologies, Complaints, and my personal favourite - Overdue Accounts. These files will load into most word processors with the greatest of ease, but also included is a basic word processor (named Big Editor) that will allow the loading, editing and printing of these and other files.

If you'd like to order any of the abovementioned programs, contact Brunswick Publications by writing to: PO Box 745, Campsie NSW 2194. All disks are $5.00 each. For a free printed catalogue, simply write to Brunswick requesting one.

Printer Problems

D.R. Cooper of Wauchope NSW writes:

Dear Owen, I am writing to seek help with a GEOS problem. My first printer was a Star Gemini 10X. When I first bought it in 1984 I bought with it a very simple interface. Using that combination, GEOS worked quite well.

A couple of years ago I sold the Gemini 10X and bought an LC-10II printer. There were a couple of things the original interface wouldn't do, so I sold it with the 10X and brought an Xetec Super Graphix Interface which has various DIP switch settings to allow use with various printers. This is where my two troubles started.

A) The LC-10II printer is not specifically listed in the instructions in the interface manual. The DIP switch settings for the other Star printers do not work with my word processor (a Write Now! cartridge), for which I have to set all switches to the Up position.

So far as the instructions are concerned, that is the setting for a daisy wheel printer. When using a small spreadsheet program which I copied out of RUN magazine a few years ago, I have to set the DIP switches as for an Epson 132 column printer, to get a result.

B) The GEOS program predates the LC-10II printer, which is therefore not listed among the printer drivers there either. The Gemini 10X driver, and the Star LC-10 drivers don't appear to work.

The problem is that the interface seems to require different DIP switch settings, depending on what program it is working with, and there are so many possible combinations of GEOS drivers and interface switch settings that I haven't a hope of finding the right one by trial and error.

Since it's a relatively new model, I'm not familiar with the LC-10II, but the first thing to check for is DIP switches on the printer itself. These can vary from printer to printer. Almost all will have settings for changing line-feed/carriage return combin- ation, but many have extra settings controlling fonts and possibly emulation modes.

Check your printer's manual for any mention of setting up your printer to emulate another, such as an Epson or IBM. Also check the manual's recommended settings for dip switches on the printer itself.

If you have no luck in finding an emulation mode for your printer, try setting up your interface and GEOS to behave as if you had a Star NX10.

Failing that, set your interface to behave as an Epson, and use the Star driver that most closely matches your printer. If this still doesn't work, try setting up the Comm- odore Compatible driver in GEOS and experiment with the DIP switches on the interface.

You shouldn't have to constantly change interface DIP switch settings between programs. Keep in mind that most word processors also have options to set up depending on your printer type. Again, begin trying the Epson drivers, as these are usually the most compatible. If any reader has had success in setting up this equipment, drop me a line.

That just about wraps up this edition of The C64 Column. As always, I'd love to hear from you. Drop me a line care of:

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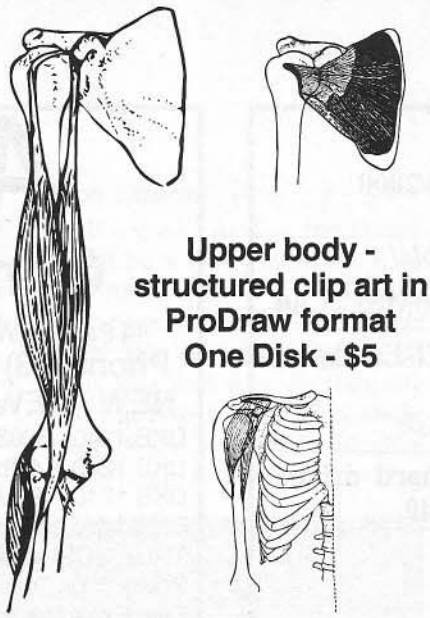

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Author	Title	Publisher	Of public
Adams, Douglas	Dirk Gently's Holistic Detective Agency	Pan Books Ltd.	1988
Adams, Douglas	Hitchhikers Guide to The Galaxy, The	Guild Publishing	1986
Baum, L. Frank	Wizard of Oz, The	Mandarin Publishers Limited	1993
Beresford, Dick	Uncensored Boy's Own, The	Macdonald & Co (Publishers) Ltd	1990
Boardman, Tom Jr	Science Fiction Stories	Octopus Books Limited	1993
Burnett, Frances Hodgson	Secret Garden, The	Octopus Books Limited	1993
Carroll, Lewis	Alice's Adventures in Wonderland	Octopus Books Limited	1991
Clarke, Arthur C.	2010: Odessey Two	Granada Publishing Limited	1982
Clarke, Arthur C.	2061: Odessey Three	Grafton Books	1989
Crichton, Michael	Jurassic Park	Random House	1991
Davis, Jim	Garfield: Here's Looking at You	Ravette Books Limited	1995
Davis, Jim	Garfield: Life And Lasagne	Ravette Books Limited	1996
Davis, Jim	Garfield: We Love You Too	Ravette Books Limited	1995
Doyle, Sir Arthur Conan	Lost World, The	Hamlyn Publishing	1986

Database II

A collection of simple to use database programs for maintaining all sorts of lists - from catalogues to clients. Flexer - pictured above - is one of the new programs included on release II of the database compilation. Flexer's form-like display makes it ideal for beginners, and powerful enough for advanced users.

Workbench 2.x and 3.0

Screen Blanker

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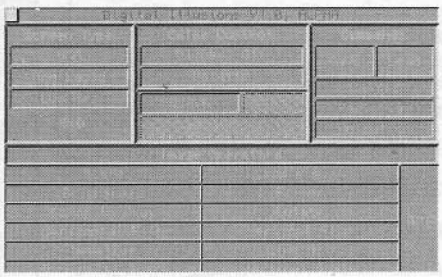

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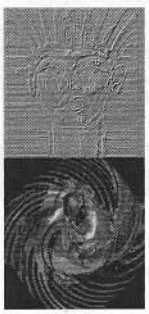

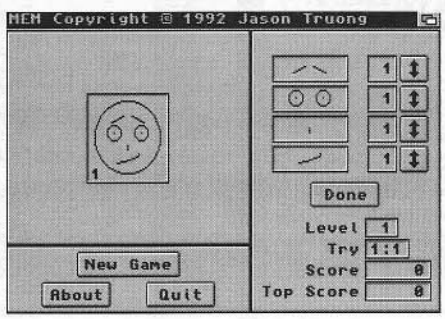

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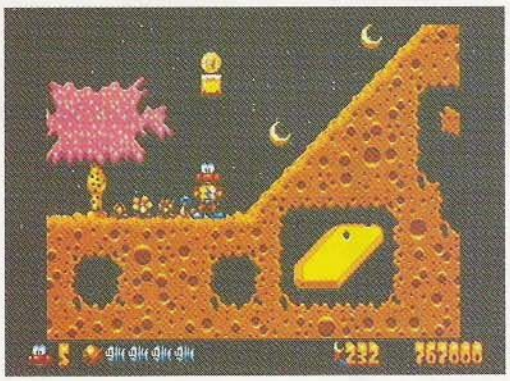


The secret agent fish with feet just won't go away, and neither will the lousy puns. Ignore all these.

Ignore also the fact that the game comes with a complete F.I.5.H. agent kit, incorporating various stickers and cardboard articles.

Furthermore, ignore the grainy digitised animated intro, which is the same one we saw on James Pond 2 CD-32.

All these silly trimmings surround a rather good, if cutesy, platform game. James Pond's abilities have been changed again; he's lost his telescopic midsection but has gained the ability to sprint up impossible slopes, walk upside down on suitable surfaces, punch bad guys and pick up and use various items.

These include a variety of crude projectiles - rocks, pieces of cheese, fruit - a parachute-umbrella, a fruit gun, dynamite, a bomb - you get the picture. Different enemies are best squished with different weapons; there's a certain satisfaction to flattening an evil little bomb-spiting mouse with a wedge of cheese. There are also (radical development) a whole load of bonuses, many of which you obtain by (another startling advance) jumping up and bashing the underside of bricks with your head.

What else is different about this game? Not a whole heap. The graphics are still sparse but comprehensible, with quite good attention to detail - I prefer that to the million-colour smorgasbord attempts in games like Oscar, where you get a migraine trying to figure out what's where.

The animation is smooth and speedy, which is just as well because Pond has the usual cute platform hero ability of moving like a dogtrack bunny.

The sound, like the graphics, is not very plentiful but good when it happens. Music's good, the sampled speech adds nothing to the game but doesn't annoy.

The control system feels a little squishy, but once you're accustomed to Pond's behaviour - how to control his headlong plunges down slopes, how he always jumps perpendicular to the surface he's on - it's very playable. You need a bit more precision than is necessary for many platform games - it's easy to miss things by a pixel or two - but it's not excessively fussy.

Thanks to Computer Affair for our review copy.

(02) 417 5155

❑

VIDEO CREATOR

Make your own music videos

By Andrew Farrell

Take a CD jam packed with graphics, add your favourite music track, and some very slick presentation software and the result is Video Creator. The blurb promises you'll be making your own professional looking music videos in no time, and that's not far short of what I managed to achieve within my first hour of tinkering.

Video Creator is somewhere between the Red Sector Demo Maker and Scala - it's a package filled with the sort of graphics you would expect to find in a Euro-hacker demo, but the interface is easy to use, very powerful, and not unlike the very popular Scala.

You'll need a mouse or trackball to operate the program - using the standard CD32 game controller is out of the question. The idea is to use the thousand plus off the shelf images included, or any of the several hundred permutations of vector graphic animations, sequenced with a good dose of special effects all in time to the beat of a CD or Video track of your choice.

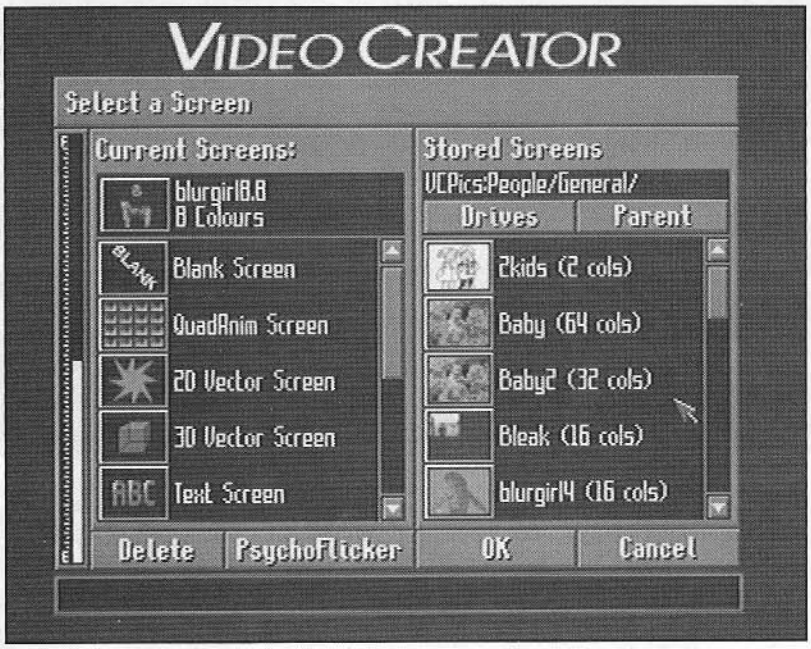
The amount of variety on offer makes for hours of potential fun. The greatest drawback is the inability to save your finished video unless you have a serial connection to a regular Amiga.

When you first run the CD, the main menu offers the choice of viewing a short, but impressive demo, editing, loading or saving a video, or having the software make some random raves for you. The trick here is whether to select all the various bits you need off the Video Creator CD before inserting your music CD, or to play it by ear and end up in a disc swapping frenzy.

The disc comes with only one short music track, suitable for experimentation but hardly long enough for any serious work. Once you know your way around, and have a bit of an idea which song you want to put some spice into, it's easy to select a number of parts from the CD before flipping over to a music disc to get them all in the right spot.

The main edit menu is much like Scala - with a few things missing, and a number added. A thumb nail of the screen appears, following by the effect number, description, a graphic of the effect and the time.

At the top of the screen a time line shows when the effect will happen. These can be dragged with the mouse.



Stringing it all together

Each event in the video is referred to as an effect, and can be any one of several things including an IFF image, 3D vector animation, 2D vector animation, or a Quadanim. Confusingly, an effect can also be a command to change the settings of the current 2D or 3D vector anim or Quad-Anim.

The images on disc range from faces and fractals, to scenery and borders. There's 45 Quad-anims, which are small anim files which can be displayed video-wall style. You also have 45 3D vector-objects, the sort you might find in any good hacker demo, each with adjustable speed on the X, Y and Z axis.

There's also 45 2D vector-anims, once again straight out of hackerville, including silouette dancing sequences.

The Quad-anims can be displayed in any one of eight different modes, and there are 1500 IFF images, all carefully sorted in theme groups and sub-groups.

Special Effects

Each event line includes an effect type. These range from simple transitions, such as reveal, slide and move to more complex actions such as peel, squeeze, shrink, melt, or cube. There's also a cross-fade effect, which is limited only by the number of colours in the source and destination images.

The most amazing effects is overlay. 2D and 3D vector objects, quad anims and images can be overlayed two at a time to create an impressive montage of graphics. Images can also be colour cycled - with a number of variations in how the colours are moved.

Text support is minimal. You cannot choose a font, or point size. You simply bash in some text, and Video Creator does the rest, positioning it in the middle of the screen. Text can also be overlayed onto other effects.

Synchronisation

There are three ways to synchronise each effects to music or a video CD. You can physically adjust the postion of the effect on the time line at the top of the screen simply by dragging the effect number. Or you can select the effect, hit the sychronise button and when the CD plays the bit you want, hit the left mouse button to record the timing.

The last method is good in theory, but a little more tricky in practise. You select a range of events or effects. Now when you hit the synchronise button, each effect will by synchronised one after the other,

FMV or Genlock

The source track can be either an audio CD, or a video CD. The CD32's graphics are overlayed onto the FMV image. In theory it would also be possible to use the CD32 as a source on a mixer, or perhaps as a sync to a genlock. There's all sorts of possibilities, many of which will open wider once the CD32 becomes more expandable or A1200 CD units start shipping.

Wrap Up

The Video Creator seems well suited to the current craze of rave dance music clips. However, it could be equally at home as a fun thing to enhance the life of your own party. Considering this is the first commercial incarnation of the program, Almathera have done very well. It would be a logical step to release the package for use on all AGA machines, especially once CD-ROM support becomes more readily available. The ability to play ANIM files would be a nice addition, as would better text support. Right now, it's a fun toy that could also be of professional use to special effects people.

Thanks to Computer-Affair for our review copy. For info call (02) 417 5155. RRP is $99.

❑

NODDY'S™ BIG ADVENTURE

Enid Blyton's™ NODDY™

By Andrew Farrell

Until recently I was not adequately qualified to review this program. However, I have a confession to make. I have seen Noddy, the live stage show. Yes folks, there's nothing quite like several hundred screaming kids, and a lesser number of bewildered parents, packed into a tiny theatre.

Noddy, it seams, is enjoying a politically correct revival. The modern edition is minus the elements that sent shock waves through the homes of families through-out the world - when it was suggested Noddy was gay. Now whether you believe such allegations, I can assure you the game has no such references.

Installation onto hard disk is something of a lesson in dexterity. Are you ready? When you get to the animated loading screen, press both Alt keys, F5 and F6! Are these guys serious? Anyhow, you then enter the destination path and all four disks are copied to your hard drive. Running from floppy is possible, but a rather frustrating amount of disk swapping is likely.

The package is basically a bunch of very simple activities, connected by a map to Toyland. To move to a particular game, you must guide Noddy in his cute little car to the appropriate destination. On the way you can pick up and drop off other Toyland characters.

There's no particular purpose to this, it's just there for fun. You can make Noddy sound his horn, wave, brake, nod or roar the engine as you potter along.

When you're tired of driving, it is possible to jump directly to the game section using the function keys.

Edutainment content

Each of the games begin with a scene containing lots of little things to click on which do something. Nothing too entertaining mind you, just something... like opening, or moving, or blinking, or falling. Usually this is accompanied by a sound effect, and one of the objects will be the way to get to the game.

There are seven games in all, Kitchen Fun (find hidden food), Noddy's Scales (match weights to balance the scales), Tricky Trees (a glorified version of Simon, where you have to remember sequences of notes), Can You Find Me (find shapes and colour in a picture), Bert's Scrapbook (sort pictures in a scrapbook), Beach Sorter (match animals to their kind - mammal, reptile and so on), Picnic Attack (stop the lobsters from stealing Noddy's picnic).

The controls for Noddy are a little confusing, the mouse is best

for playing the games, but Noddy's car can only be driven using the keyboard or a joystick. Big Ears appears in the corner of the screen to give help if required. The games themselves are a cut above average when it comes to making wrong answers.

Typically, you'll be prompted or coached to try and get the right answer, for several tries. Only then does the correct answer appear. This is a step up from the simply right or wrong approach of many educational programs.

The three levels of difficulty offer more than a simple increase in the complexity of questions. The method of solving each game actually becomes considerably more complex, which is why the game spans from three to seven year olds without too much trouble.

All this and a wordprocessor!

Disk four contains a bonus - it's a picture and word wordprocessor. There are three levels of operation. At the easiest, you simply choose from a bank of small pictures to tell a story. The line beneath each row of images may contain the first letter of the picture name. At the second level, the wordprocessor supplies a partially spelt version of the complete name of each picture. You have to fill in the blanks.

On the highest levels, the pictures are merely a reference - you have to do all the typing. You can load, save and print the resulting document, which may have many pages. It's a good, simple package bound to help younger ones develop word skills. However, it lacks the bells and whistles likely to hold the attention span of younger minds.

Wrap Up

Overall, Noddy's Big Adventure is a reasonably solid package. Installed on hard disk, it runs smoothly. From floppy, it's a bit of a pain.

The interface is great, and the educational value reasonably good. It lacks a little in the longevity department, but the multiple levels of difficulty will help ensure the program lasts you a few years.

For more info call Amadeus on (02) 652 2712. RRP $59.95.

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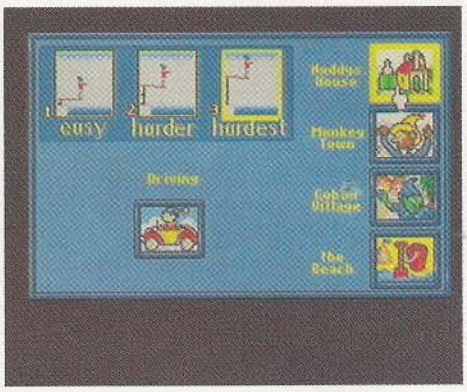
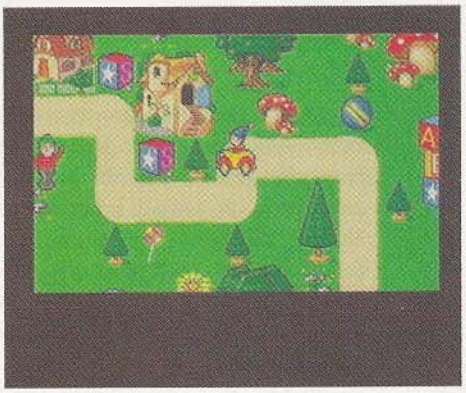
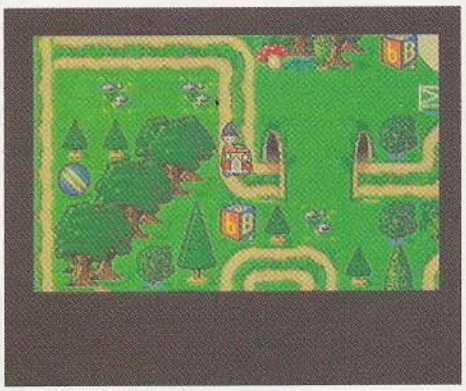
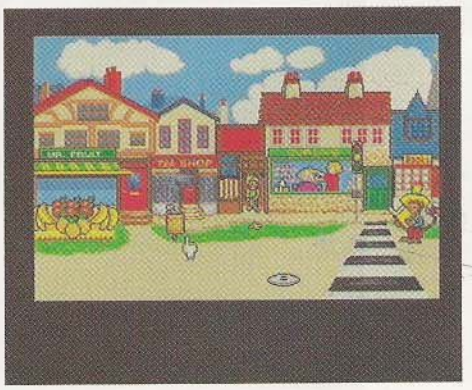








The best ideas, and games, are often simple. How about little guys running around a Gridfire style maze, dropping bombs? The bombs blow in four directions, and the blast stops if it hits a breakable rock or indestructible wall or if it just runs out of puff. You can get bonuses (by blasting rocks) for extra bombs at once, extra bomb range, bombs you can trigger and so on, and you can play with up to five humans at once.

If a bomb blast hits another bomb, that one goes off too, whether it's reached the end of its couple-second fuse or not. And if you blast the exit transporter or a bonus, monsters come out. That's about it.

The DynaBlaster formula worked well at the arcades, where it joined the ranks of Japanese Cute Games; being able to get four of your friends in on the blasting is definitely what makes it worthwhile.

As a single player experience, DynaBlaster's average. Instead of evil scheming human opponents you get computer monsters of various levels of intelligence, which can only kill you by running into you. Challenging this is, when you get into the big scrolling levels with hordes of bad guys, but there's not the thrill of putting ten pounds of instant sunshine under your best mate's behind.

How do you get five players at once without cramming your keyboard with humanity? Use the parallel port adaptor supplied with DynaBlaster, which accepts two joysticks, making a total of four sticks and one keyboard player. The adaptor, which is universally referred to on the box and in the documentation as an "adaptator", is also DynaBlaster's copy protection; you can't play the game without it.

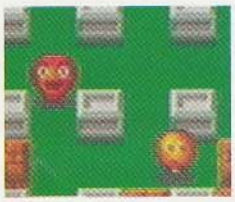
In fact, the only good reason not to buy DynaBlaster is the price. At $79 it's a bit on the steep side for a simple game like this, and you can get a very, very good shareware imitation for about $5 to evaluate and $US10 (or more - the author kindly lets you send him as much as you like!) to register, from any PD library. Dynamite Warriors, on Fred Fish disk 931, doesn't have a single player option, but it can handle five players too if you've got one of the old (Leatherneck) type four player adaptors.

Dynamite Warriors isn't quite as pretty as DynaBlaster, but there are more interesting power-ups, some specifically designed to make other players miserable like the joystick reverser and the bomb dropping preventer.

DynaBlaster's slightly prettier, but if you're going to buy it for the multi-player mode (which is the best thing about it), check out Dynamite Warriors; $50 off is significant!

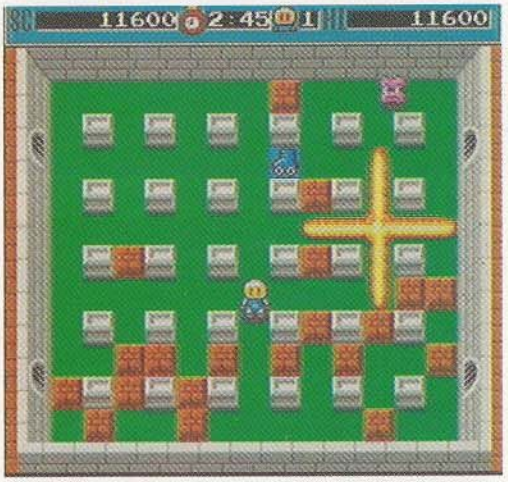
Thanks to Amadeus Computers on (02) 652 2712 for the review copy.

❑



One toasted bad dude, and the one that got away!

Bonus Rollerskates allow you to move faster!



There are two sorts of Platform Game Heroes. Super-butch heavily armed skullcrushing maniacs, and cute things with no sharp edges. Mr Nutz, in case the name didn't make it plain to you, fits in the latter group.

The story behind this platform game is even sillier than usual, so I shan't bother you with it. The bad guys are chickens, you're a squirrel, never mind why.

As is traditional for Cute Heroes, Mr Nutz has no gun, no ninja accessories, no sock full of wet sand. He kills baddies primarily by jumping on them, though he can get a couple of non-shooting accessories to make the job easier. He can run and jump, and he can roll up into a ball when he's running downhill (hang on, doesn't that sound a bit like...?). Furthermore, Mr Nutz carries a collection of Hit Points with him, and when he gets hit by something they fly off. When he runs out of Hit Points he dies, but he can grab lost points back if he can catch them (wait a minute, that's just like...).

No! No! It's not Sonic the Hedgehog! It's not! Honest!

OK, it's a bit like Sonic. Like Sonic, Mr Nutz can't turn on a dime, but skids a bit when he stops. Like Sonic's levels, you can burn through those of Mr Nutz by just sprinting right and jumping like crazy (you miss a lot of bonuses and take a few hits, but whaddaya want?).

Unlike Sonic, there are map stages between the platform ones, which slow the game down and add not a lot to the gameplay. You can't die on the map, and it appears in a weeny little window, so its inclusion is a bit of a mystery. All sorts of silly characters as well as evil chickens show up and talk to you in the map, and you can pick up extra bonuses too, but other games fit all this sort of stuff into the action.

On the plus side, there's no time limit, so you can inch through the levels to get them absolutely perfect. You can also fly if you get the right bonuses and have enough Hit Points; flight ranges from simple gliding to complete aerobatics depending on how powered-up you are, and is huge fun once you master the rather puzzling control system.

The ECS graphics are clear and colourful, the sound's good, the music's pretty funky and once you're used to the squishy feeling control it's quite playable. Revolutionary? No. Worth a look? Yes.

For more information contact Sega-Ozisoft on (02) 317 0000.

❑

The USS Enterprise, all yours. Kirk may be sitting in the big chair, but you're holding the reins and controlling the destiny of the crew as they blast their way through the galaxy (this is the original series, not that new age Next Generation powder-puff convention).

When you beam down, you're in charge of Jim, Bones and Spock and tell them what to do to solve various puzzles.

On the face of it, it looks a winner. The PC version was. The mouse-driven graphic adventure interface was criticised by some as a bit clunky, but I didn't mind it. The graphics in both 25th Anniversary and its sequel, Judgement Rites, were clear, the gameplay interesting without being overly difficult and the open-ended, finish any way you like format makes it worth playing over and over, to get the scenerios done better and better. The dialogue's brilliant, too; the programmers obviously watched a few episodes and got the series' tone down perfectly.

But I reckon the Amiga version stinks.

Why? Sheer laziness on the part of the coders. The graphics have been ported straight from 256 colour VGA to 256 colour AGA - nothing wrong with that. The music was lousy to start with and so hasn't lost much; the sparse sound effects are acceptable. But the interface is useless, because whatever person at Interplay was responsible for porting the game over was evidently unaware that the Amiga has mouse support built in.

So instead of using the perfectly comprehensible, logical and universally accepted internal mouse routines, this guy rolled his own, which are paralytically slow.

The mouse movement matches the rest of the game; on a 1200 with fast RAM it's better than Valium and not much better on a 40MHz 030.

You can't fight a space battle when the ship steers like a supertanker, and it's hard to snap off a perfect phaser shot when the pointer appears to be made of lead and connected to the mouse with a rubber band.

If you are patient, dextrous and desperate to see an improbably trim William Shatner on your computer screen, check Star Trek: 25th Anniversary out. Otherwise, it's a sad case of close but no cigar.

If you really feel compelled to go out and buy it, then call Sega-Ozisoft on (02) 317 0000.

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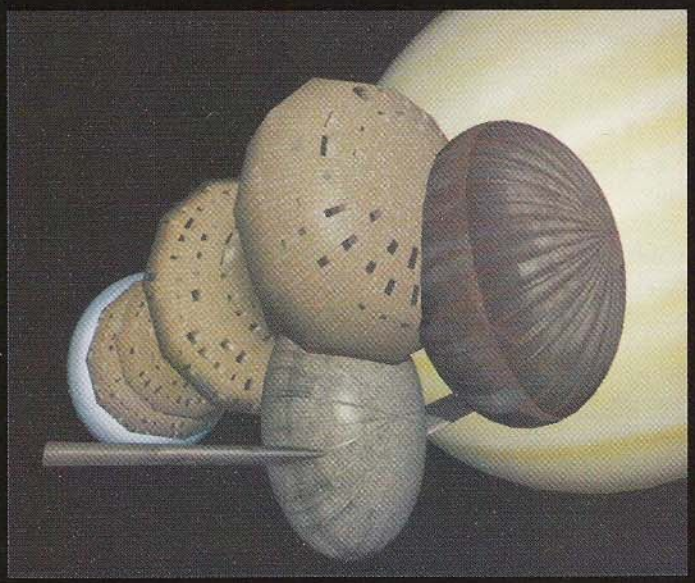
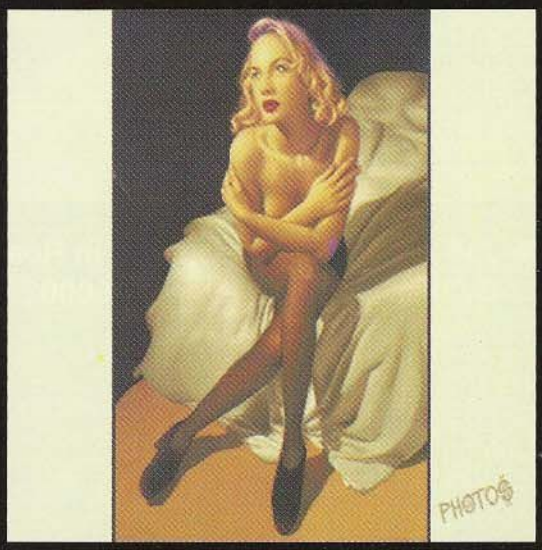


● **800 x 600, 24bit, rendered in Imagine 3. By Colin Chung.**

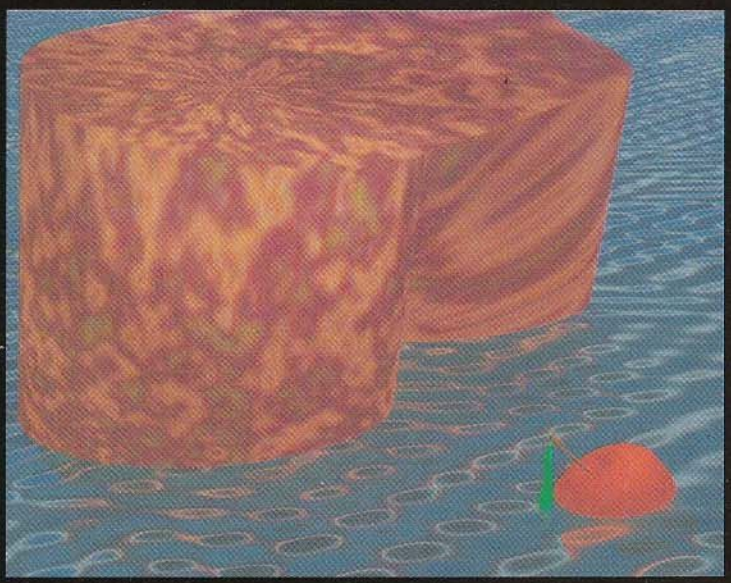
● **736 x 566, 24bit, rendered in Imagine. By Colin Baggarley.**

GALLERY

● 1280 x 256, HAM8, rendered by David Kennedy.



● 352 x 566, EHB, hand drawn.



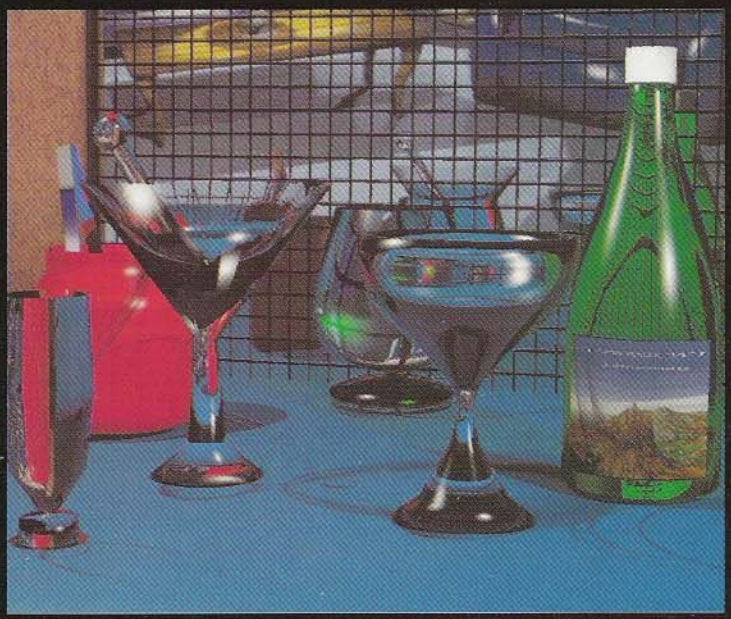
● 640 x 512, 24bit, rendered in Imagine 3.
By Colin Chung.

● 640 x 512, 24bit, rendered in Imagine 2.
By Perry Wong.

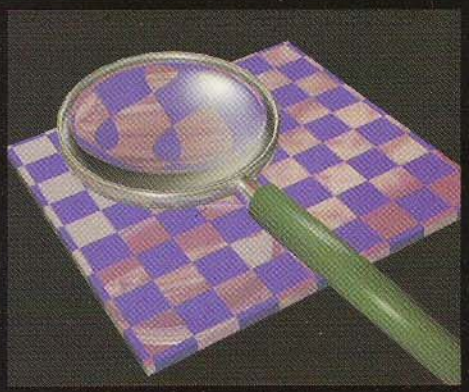
● 736 x 566, 24bit, rendered in Real 3D 1.42. By Ivan Smith. The new A5000?

● 704 x 562, 24bit, rendered in Imagine 2.9. By David Woolley.

● 640 x 512, HAM8, rendered in Imagine 2. By Perry Wong.



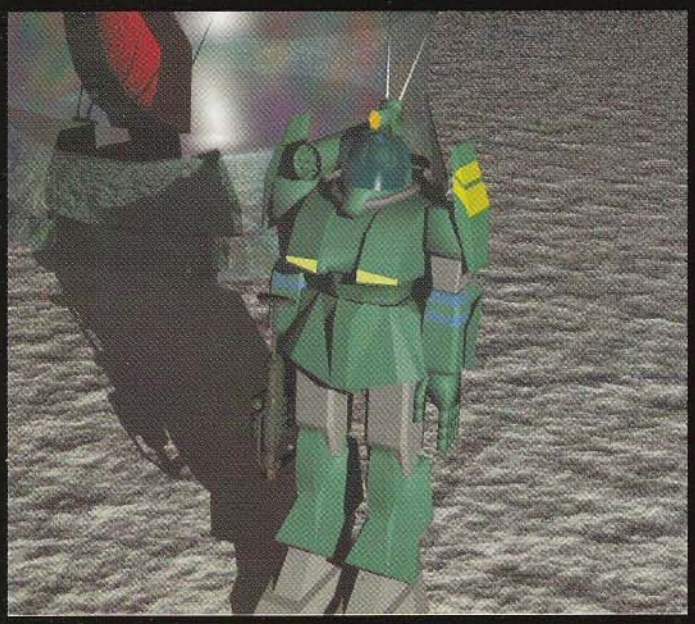
● 704 x 566, 24bit, rendered in Imagine 2. By Steven Pronger.



● 704 x 566, 24bit, rendered in Imagine 2. By Steven Pronger.

● 640 x 512, 256 colours, hand drawn.

● 576 x 768, 24bit, Opal paint and Vista Pro.
By Mark Johnson, Video Pixel.



● 704 x 566, 24bit, rendered in Imagine 2.0 with
Essence and AdPro 2. By Steven Pronger.

● 640 x 512, 256 colours, ray trace.

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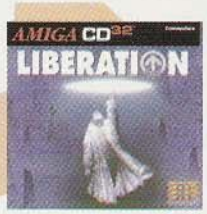

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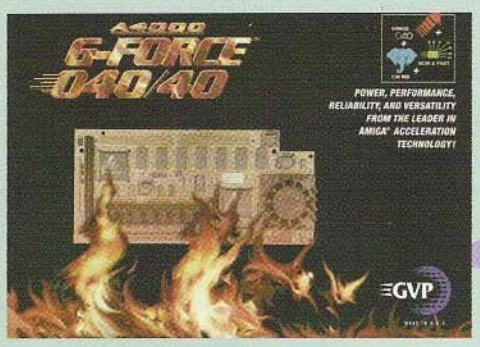

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